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NATIONAL BODY-BURDEN DATABASE

CHEMICALS IDENTIFIED IN ANIMALS

1985-1986
VOLUME V, PART 4

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Printed in the United States of America
USDOE Office of Scientific and Technical Information
Oak Ridge, Tennessee

EPA-560/5-87-004-Vol.5-Pt.4
(DE88000826)
Distribution Category UC-11

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CHEMICALS IDENTIFIED IN ANIMALS
1985-1986
VOLUME V, Part 4

Prepared by

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Post Office Box 2501
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for Analysas Corporation
under Department of Energy Contract No. DE-AC05-860R21644

This effort was accomplished under the aegis of the
Interagency Collaborative Group on Environmental Carcinogenesis,
National Cancer Institute, National Institutes of Health,
Dr. Thomas P. Cameron, Chairperson

Published December 1987

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Design and Development Branch
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Office of Toxic Substances
U.S. Environmental Protection Agency
Washington, DC 20460

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DATABASE RECORDS

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DATABASE RECORDS

10,919-13,304

Nickel

7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10919 Bone	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable j) Not applicable	a) 0.056 ug/g b) 0.048 ug/g c) 0.049 ug/g d) 0.048 ug/g e) 0.043 ug/g f) 0.19 ug/g g) 0.03 ug/g h) 0.08 ug/g i) 0.09 ug/g j) 0.06 ug/g Wet wt	a) Chick, sternum b) Humerus c) Cervica vertebrae d) Femur e) Tibia f) Adult, sternum g) Humerus h) Cervical vertebrae i) Femur j) Tibia Chick was 12 d old female, adult was a 2 yr old male. Both captured in 1981. Korea, Chungcheongnando, Cheonan City AAS
BIRDS; ENVIRONMENTAL EXPOSURE; IRON; MANGANESE; ZINC; COPPER; LEAD; NICKEL; CADMIUM; MERCURY; MUSCLES; BONES; FEATHERS; BIOACCUMULATION; KOREA; TERRESTRIAL Honda, K.; Min, B.Y.; Tatsukawa, R. 1985 Bulletin of Environmental Contamination and Toxicology 35:781-789				

Tissue	Cases Exposure Route	Range	Mean	General Information
10920 Bone	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.14+/-0.09 ug/g b) 0.07+/-0.02 ug/g c) 0.08+/-0.04 ug/g d) 0.11+/-0.01 ug/g e) 0.15+/-0.13 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 0.08+/-0.03 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10921 Brain	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.03+/-0.01 ug/g b) 0.06+/-0.02 ug/g c) 0.06+/-0.04 ug/g d) 0.03+/-0.03 ug/g Wet wt	a) 12-24 day old downy young b) 30-40 day old prefledglings c) 55-70 day old fledgling d) 2 yr old adult males Mean for chicks was 0.05+/-0.03 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BIRDS; BRAIN; LIVER; KIDNEYS; MUSCLES; SKIN; BONES; FEATHERS; BODY; IRON; NICKEL; MANGANESE; ZINC; COPPER; LEAD; CADMIUM; MERCURY; ADULTS; JUVENILES; KOREA; METALS; BIOACCUMULATION Honda, K.; Min, B.Y.; Tatsukawa, R. 1986 Archives of Environmental Contamination and Toxicology 15:185-197				

Nickel
7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10922 Feathers	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.10 ug/g b) 0.29 ug/g c) 0.42 ug/g d) 1.59 ug/g e) 0.14 ug/g f) 0.22 ug/g	a) Chick, coverts b) Adult, remiges c) Coverts d) Abdominal e) Primaries, rachis f) Primaries, barbs Chick was 12 d old female, adult was a 2 yr old male. Both captured in 1981. Korea, Chungcheongnando, Cheonan City AAS
BIRDS; ENVIRONMENTAL EXPOSURE; IRON; MANGANESE; ZINC; COPPER; LEAD; NICKEL; CADMIUM; MERCURY; MUSCLES; BONES; FEATHERS; BIOACCUMULATION; KOREA; TERRESTRIAL Honda, K.; Min, B.Y.; Tatsukawa, R. 1985 Bulletin of Environmental Contamination and Toxicology 35:781-789				

Tissue	Cases Exposure Route	Range	Mean	General Information
10923 Feathers	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.12+/-0.13 ug/g b) 0.14+/-0.05 ug/g c) 0.26+/-0.09 ug/g d) 0.17+/-0.02 ug/g e) 1.14+/-0.31 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 0.17+/-0.09 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10924 Kidney	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.04+/-0.01 ug/g b) 0.06+/-0.01 ug/g c) 0.04+/-0.01 ug/g d) 0.03+/-0.02 ug/g Wet wt	a) 12-24 day old downy young b) 30-40 day old prefledglings c) 55-70 day old fledgling d) 2 yr old adult males Mean for chicks was 0.06+/-0.02 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10925 Liver	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.10+/-0.01 ug/g b) 0.05+/-0.01 ug/g c) 0.05+/-0.01 ug/g d) 0.05 ug/g e) 0.03+/-0.02 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 0.06+/-0.02 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BIRDS; BRAIN; LIVER; KIDNEYS; MUSCLES; SKIN; BONES; FEATHERS; BODY; IRON; NICKEL; MANGANESE; ZINC; COPPER; LEAD; CADMIUM; MERCURY; ADULTS; JUVENILES; KOREA; METALS; BIOACCUMULATION Honda, K.; Min, B.Y.; Tatsukawa, R. 1986 Archives of Environmental Contamination and Toxicology 15:185-197				

Nickel
7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10926 Muscle	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 0.05 ug/g b) 0.07 ug/g c) 0.04 ugh/g d) 0.03 ug/g Wet wt	a) Chick, pectoral muscle b) Femoral muscle c) Adult, pectoral muscle d) Femoral muscle Chick was 12 d old female, adult was a 2 yr old male. Both captured in 1981. Korea, Chungcheongnando, Cheonan City AAS
BIRDS; ENVIRONMENTAL EXPOSURE; IRON; MANGANESE; ZINC; COPPER; LEAD; NICKEL; CADMIUM; MERCURY; MUSCLES; BONES; FEATHERS; BIOACCUMULATION; KOREA; TERRESTRIAL Honda, K.; Min, B.Y.; Tatsukawa, R. 1985 Bulletin of Environmental Contamination and Toxicology 35:781-789				

Tissue	Cases Exposure Route	Range	Mean	General Information
10927 Muscle	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.14+/-0.02 ug/g b) 0.06+/-0.01 ug/g c) 0.09+/-0.04 ug/g d) 0.05+/-0.01 ug/g e) 0.04+/-0.02 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 0.08+/-0.03 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10928 Skin	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.11+/-0.03 ug/g b) 0.22+/-0.15 ug/g c) 0.15+/-0.04 ug/g d) 0.12+/-0.09 ug/g Wet wt	a) 12-24 day old downy young b) 30-40 day old prefledglings c) 55-70 day old fledgling d) 2 yr old adult males Mean for chicks was 0.15+/-0.09 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BIRDS; BRAIN; LIVER; KIDNEYS; MUSCLES; SKIN; BONES; FEATHERS; BODY; IRON; NICKEL; MANGANESE; ZINC; COPPER; LEAD; CADMIUM; MERCURY; ADULTS; JUVENILES; KOREA; METALS; BIOACCUMULATION Honda, K.; Min, B.Y.; Tatsukawa, R. 1986 Archives of Environmental Contamination and Toxicology 15:185-197				

Nickel

7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Gadwall
ANAS STREPERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10929 Bone	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 0.7+/-0.1 mg/kg b) 0.7+/-0.2 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10930 Feathers	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 17.2+/-5.0 mg/kg b) 9.5+/-3.0 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Grouse, ruffed
BONASA UMBELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10931 Feathers	11	0.68-0.83 ug/g Dry wt	0.74+/-0.01 ug/g Dry wt S.E.	Birds shot by hunters during 11/79, 12/79 at sites >100 km from mineral mines/smelters or other sources of industrial pollution. Ages, sexes not known. Ontario, Gogama (McLeod Township) and Manitoulin Island (Robinson and Billings Townships) AAS
COPPER; NICKEL; IRON; FEATHERS; BIRDS; TERRESTRIAL; METALS; ENVIRONMENTAL EXPOSURE; CANADA; BIOLOGICAL MONITORING; BIOACCUMULATION Parker, G.H. 1985 Bulletin of Environmental Contamination and Toxicology 35:776-780				

Grouse, spruce
CANACHITES CANADENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10932 Feathers	14	0.67-1.75 ug/g Dry wt	1.09+/-0.12 ug/g Dry wt S.E.	Birds shot by hunters during 11/79, 12/79 at sites >100 km from mineral mines/smelters or other sources of industrial pollution. Ages, sexes not known. Ontario, Gogama (McLeod Township) and Manitoulin Island (Robinson and Billings Townships) AAS
COPPER; NICKEL; IRON; FEATHERS; BIRDS; TERRESTRIAL; METALS; ENVIRONMENTAL EXPOSURE; CANADA; BIOLOGICAL MONITORING; BIOACCUMULATION Parker, G.H. 1985 Bulletin of Environmental Contamination and Toxicology 35:776-780				

Nickel
7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10933 Body	7	0.02-0.12 mg/kg Wet wt	0.04 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1981-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY

Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Insect

Tissue	Cases Exposure Route	Range	Mean	General Information
10934 Liver	a) 5 b) 7	a) Not detected-6.1 ppm b) Not detected-2.1 ppm Dry wt	a) 2.12 ppm b) 0.661 ppm Dry wt Geometric	a) Detected in 4/5 composite samples of aquatic insects collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 5/7 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. Detection limit not given. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC

Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Killifish
FUNDULUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10935 Body	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 1.4 ug/g b) 0.8 ug/g c) 2.1 ug/g Dry wt	a) Providence Barge, Providence River b) Wickford Tower, Narragansett Bay c) Price Neck, Rhode Island Sound Prey of the common tern collected in 1981 near nesting sites. a) closest to Providence, major area of electroplating industry. Rhode Island AAS

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; FISHES; COPPER; IRON; ZINC; NICKEL; LEAD; CHROMIUM; MAGNESIUM; MANGANESE; BODY; LIVER; WATER POLLUTION; INDUSTRIAL AREAS; INDUSTRIAL POLLUTION; RHODE ISLAND

Custer, T.W.; Franson, J.C.; Moore, J.F.; Myers, J.E. 1986 Environmental Pollution (Series A) 41:33-52

Nickel

7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10936 Body	a) 2 b) 4	a) 0.93-1.3 ppm b) 0.96-1.2 ppm Dry wt	a) 1.09 ppm b) 1.05 ppm Dry wt Geometric	a) Detected in 2/2 composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 4/4 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC

Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10937 Body		a) 1.6-8.6 ug/g b) 3.6-16.5 ug/g Dry wt	a) 3.5 ug/g b) 7.4 ug/g Dry wt	a) Gonadal tissue, range: values at 5/21/81 and 2/17/81 b) Somatic tissue, range: values at 5/21/81 and 2/17/81 All values calculated by extractor from total burdens and wt given in table. Total of 11 collections at uncontaminated site 9/80-9/81. Levels varied with season and reproductive state. Gametogenesis and spawning in 4 and 7/81. Oregon, Newport, Yaquina Bay AAS

ENVIRONMENTAL EXPOSURE; MUSSELS; MOLLUSKS; AQUATIC; BODY; GONADS; MANGANESE; NICKEL; COPPER; ZINC; CADMIUM; ARSENIC; WATER POLLUTION; METALS; OREGON

La Touche, Y.D.; Mix, M.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:665-670

Tissue	Cases Exposure Route	Range	Mean	General Information
10938 Body	7	0.24-1.0 mg/kg Wet wt	0.44 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Eastern Scheldt, 1981-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY

Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Nickel

7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10939 Body		a) 0.7+/-0.6-1.5+/-0.5 mg/kg b) Not detected-1.7+/-2.0 mg/kg c) Not detected-1.2+/-0 mg/kg d) 0.3+/-0.5-5.2+/-7.7 mg/kg e) 0.8+/-0.7-2.5+/-3.2 mg/kg f) 0.3+/-0.6-1.4+/-1.6 mg/kg	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Palmetto Bay Marina, spring, 10 stations b) Summer c) Outdoor Resorts Marina, spring, 8 stations d) Summer e) Fripp Island Marina, spring, 9 stations f) Summer Collected from mid-intertidal portion of reefs. 15 animals/sample. Sampled weekly 3/29-4/4 and 7/26-8/11/83. South Carolina AAS
ENVIRONMENTAL EXPOSURE; AQUATIC; OYSTERS; MOLLUSKS; BODY; CADMIUM; CHROMIUM; COPPER; LEAD; NICKEL; ZINC; METALS; WATER POLLUTION; SOUTH CAROLINA Marcus, J.M.; Thompson, A.M. 1986 Bulletin of Environmental Contamination and Toxicology 36:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
10940 Body		Not given	2.1+/-0.9 ppm Wet wt	Samples collected from entrance of the Inner Harbor Navigation Canal at Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS
MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158				

Oyster, cape
CRASSOSTREA MARGARITACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10941 Body	426 (approx)	0.02+/-0.02-0.84+/-0.91 ug/g Wet wt	Not applicable	Range of means. From survey of metal levels in oysters collected 7/77-8/79 at 25 sites along 500 km of relatively undeveloped coastline from near Mossel Bay to the Port Alfred area. Study provided data for the national marine pollution monitoring program. South Africa, southern coast AAS
ENVIRONMENTAL EXPOSURE; AQUATIC; OYSTERS; BODY; ZINC; CADMIUM; COPPER; LEAD; IRON; MANGANESE; NICKEL; COBALT; CHROMIUM; SOUTH AFRICA; WATER POLLUTION; METALS Watling, H.R.; Watling, R.J. 1982 Bulletin of Environmental Contamination and Toxicology 28:460-466				

Nickel

7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2887 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
10942 Body	a) 7 b) 8	a) 0.03-0.14 mg/kg b) 0.03-0.10 mg/kg Wet wt	a) 0.05 mg/kg b) 0.06 mg/kg Wet wt	a) Collected Lake IJssel b) Collected Hollands Diep 1981-84. Edible parts, mixed samples weighing about 20 kg. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Pintail
ANAS ACUTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10943 Bone	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 2.1 mg/kg b) 4.4+/-0.2 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10944 Feathers	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 0.3+/-0.3 mg/kg b) 0.4+/-0.2 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Ptarmigan, willow
LAGOPUS LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10945 Feathers	22	0.31-1.90 ug/g Dry wt	0.91+/-0.08 ug/g Dry wt S.E.	Birds shot by hunters during 11/79, 12/79 at sites >100 km from mineral mines/smelters or other sources of industrial pollution. Ages, sexes not known. Quebec, near Great Whale River AAS
COPPER; NICKEL; IRON; FEATHERS; BIRDS; TERRESTRIAL; METALS; ENVIRONMENTAL EXPOSURE; CANADA; BIOLOGICAL MONITORING; BIOACCUMULATION Parker, G.H. 1985 Bulletin of Environmental Contamination and Toxicology 35:776-780				

Nickel
7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Rat
RATTUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10946 Blood	a) 15 b) 15 c) 4 d) 5 e) 5 f) 5 g) 4 Inhalation	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) 0.17+/-0.13 ug/g g) 1.08+/-1.31 ug/g	a) Controls, sacrificed after 3, 6, or 12 mo b) 3-mo, low (0.3+/-0.2 mg/cu m) exposure c) 3-mo, high (1.2+/-0.3 mg/cu m) exposure d) 6-mo, low exposure e) 6-mo, high exposure f) 12-mo, low exposure g) 12-mo, high exposure Per g organ wt. At sacrifice following exposure to green nickel oxide aerosols (mass median aerodynamic diameter, 0.6 um) for 7 hr/d, 5d/wk. Detection limit 0.1 ppm.
10947 Kidney	a) 15 b) 15 c) 4 d) 5 e) 5 f) 5 g) 4 Inhalation	a) 0.03+/-0.01-0.06+/-0.02 ug/g b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given Range of means	a) Not given b) 0.05+/-0.03 ug/g c) 0.05+/-0.01 ug/g d) 0.04+/-0.02 ug/g e) 0.08+/-0.01 ug/g f) 0.07+/-0.03 ug/g g) 0.13+/-0.07 ug/g	a) Controls, sacrificed after 3, 6, or 12 mo b) 3-mo, low (0.3+/-0.2 mg/cu m) exposure c) 3-mo, high (1.2+/-0.3 mg/cu m) exposure d) 6-mo, low exposure e) 6-mo, high exposure f) 12-mo, low exposure g) 12-mo, high exposure Per g organ wt. At sacrifice following exposure to green nickel oxide aerosols (mass median aerodynamic diameter, 0.6 um) for 7 hr/d, 5d/wk.
10948 Liver	a) 15 b) 15 c) 4 d) 5 e) 5 f) 5 g) 4 Inhalation	a) 0.02+/-0.01-0.05+/-0.02 ug/g b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given Range of means	a) Not given b) 0.03+/-0.01 ug/g c) 0.07+/-0.03 ug/g d) 0.06+/-0.02 ug/g e) 0.65+/-1.07 ug/g f) 0.11+/-0.08 ug/g g) 0.66+/-1.07 ug/g	a) Controls, sacrificed after 3, 6, or 12 mo b) 3-mo, low (0.3+/-0.2 mg/cu m) exposure c) 3-mo, high (1.2+/-0.3 mg/cu m) exposure d) 6-mo, low exposure e) 6-mo, high exposure f) 12-mo, low exposure g) 12-mo, high exposure Per g organ wt. At sacrifice following exposure to green nickel oxide aerosols (mass median aerodynamic diameter, 0.6 um) for 7 hr/d, 5d/wk.

(next page)

Nickel
7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Rat
RATTUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10949 Lung	a) 15 b) 15 c) 4 d) 5 e) 5 f) 5 g) 4 Inhalation	a) 0.12+/-0.01-0.20+/-0.03 ug/g b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given Range of means	a) Not given b) 169+/-17 ug/g c) 471+/-44 ug/g d) 258+/-33 ug/g e) 447+/-140 ug/g f) 293+/-147 ug/g g) 614+/-237 ug/g	a) Controls, sacrificed after 3, 6, or 12 mo b) 3-mo, low (0.3+/-0.2 mg/cu m) exposure c) 3-mo, high (1.2+/-0.3 mg/cu m) exposure d) 6-mo, low exposure e) 6-mo, high exposure f) 12-mo, low exposure g) 12-mo, high exposure Per g organ wt. At sacrifice following exposure to green nickel oxide aerosols (mass median aerodynamic diameter, 0.6 um) for 7 hr/d, 5d/wk. Lung weights in exposed rats were heavier than in controls, increasing with increase of exposure concentrations.
10950 Spleen	a) 15 b) 15 c) 4 d) 5 e) 5 f) 5 g) 4 Inhalation	a) 0.10+/-0.04-0.17+/-0.04 ug/g b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given Range of means	a) Not given b) 0.14+/-0.06 ug/g c) 0.17+/-0.09 ug/g d) 0.13+/-0.18 ug/g e) 2.01+/-4.09 ug/g f) 0.14+/-0.04 ug/g g) 1.58+/-2.24 ug/g	a) Controls, sacrificed after 3, 6, or 12 mo b) 3-mo, low (0.3+/-0.2 mg/cu m) exposure c) 3-mo, high (1.2+/-0.3 mg/cu m) exposure d) 6-mo, low exposure e) 6-mo, high exposure f) 12-mo, low exposure g) 12-mo, high exposure Per g organ wt. At sacrifice following exposure to green nickel oxide aerosols (mass median aerodynamic diameter, 0.6 um) for 7 hr/d, 5d/wk.
RATS; NICKEL; LUNGS; LIVER; KIDNEYS; SPLEEN; BLOOD; DELIBERATE EXPOSURE; AIR POLLUTION; DUST; INHALATION Tanaka, I.; Ishimatsu, S.; Matsuno, K.; Kodama, Y.; Tsuchiya, K. 1986 Biological Trace Element Research 9:187-195				

Scaup, lesser
AYTHYA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10951 Bone	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 0.9+/-0.2 mg/kg b) 0.8+/-0.1 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10952 Feathers	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 3.5+/-0.8 mg/kg b) 2.8+/-0.4 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Nickel
7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10953 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 4+/-0.4 ug/g b) 3+/-0.4 ug/g c) 2+/-0.4 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
10954 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 3+/-0.6 ug/g b) 2+/-0.6 ug/g c) 1+/-0.6 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
10955 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 0.6+/-0.3 ug/g b) 0.5+/-0.3 ug/g c) 1.1+/-0.3 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
10956 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) <0.4 ug/g b) <0.4 ug/g c) <0.4 ug/g Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
10957 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2+/-0.3 ug/g b) 2+/-0.3 ug/g c) 3+/-0.3 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE

Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424

Nickel
7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Shoveler
ANAS CLYPEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10958 Bone	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 0.2+/-0.1 mg/kg b) 1.7+/-1.7 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Shrimp
CRANGON CRANGON

Tissue	Cases Exposure Route	Range	Mean	General Information
10959 Body	7	0.13-0.78 mg/kg Wet wt	0.26 mg/kg Wet wt	Analyzed cooked and unpeeled. Mixed samples weighed about 20 kg. Collected from Western Wadden Sea, 1981-84. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Sole
SOLEA SOLEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10960 Body	7	0.01-0.05 mg/kg Wet wt	0.03 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1981-84. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Nickel

7440-02-0

Ni

AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Sponge

SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10961 Body		400-2250 ug/g Dry wt	1000 ug/g Dry wt	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS

Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Sponge (P. foetida)

PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
10962 Body		0-15.0 ug/g Dry wt	Not given	Collected during 1978-80 Levels higher during post-monsoon (Oct-Jan). India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS

Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Sunfish, redbreast

LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10963 Muscle	2	0.001-0.001 mg/kg Wet wt	0.001 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS

Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Nickel

7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Sunfish, *spotted*
LEPOMIS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10964 Muscle	2	0.001-0.001 mg/kg Wet wt	0.001 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362				

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
10965 Bone	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 0.6+/-0.2 mg/kg b) 2.3+/-0.2 mg/kg Wet wt S.E.	a) Without ingested shot b) With of ingested shot in gizzard Significant difference ($p<0.001$). Texas, Chambers County ES
10966 Feathers	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 3.8+/-0.6 mg/kg b) 1.6+/-0.5 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Tern, common
STERNA HIRUNDO

Tissue	Cases Exposure Route	Range	Mean	General Information
10967 Liver	a) 14 b) 15 c) 6	a) Not detected-0.99 ug/g b) Not detected-0.71 ug/g c) Not detected-1.0 ug/g Dry wt	a) Not given b) Not given c) Not given	a) Providence Barge, Providence River b) Wickford Tower Narragansett Bay c) Price Neck, Rhode Island Sound Nesting sites, a) closest to Providence, major area of electroplating industry. 13-16 day old animals, 1981. Detection limit 0.10 ug/g. Rhode Island AAS
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; FISHES; COPPER; IRON; ZINC; NICKEL; LEAD; CHROMIUM; MAGNESIUM; MANGANESE; BODY; LIVER; WATER POLLUTION; INDUSTRIAL AREAS; INDUSTRIAL POLLUTION; RHODE ISLAND Custer, T.W.; Franson, J.C.; Moore, J.F.; Myers, J.E. 1986 Environmental Pollution (Series A) 41:33-52				

Nickel

7440-02-0
Ni
AtW 58.71, MP 1455 C, BP 2837 C, VP 10 mm Hg at 2090 C, 100 mm Hg at 2370 C

Tilefish
LOPHOLATILUS CHAMAELEONTICEPS

Tissue	Cases Exposure Route	Range	Mean	General Information
10968 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10969 Kidney	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.35+/-0.18 ppm b) 0.43+/-0.27 ppm c) 1.24+/-0.65 ppm d) 1.07+/-0.91 ppm e) 0.45+/-0.34 ppm Wet wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 94%. Detection limit 0.1 ppm. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ AAS
10970 Liver	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.44+/-0.36 ppm b) 0.99+/-0.85 ppm c) 0.24+/-0.15 ppm d) 0.27+/-0.15 ppm e) 0.13+/-0.10 ppm Wet wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 81%. Detection limit 0.1 ppm. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ AAS
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

Niobium
7440-03-1
Nb
AtW 92.9064, MP 2468 C, BP 4927 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10971 Body		13-80 ug/g Dry wt	35.5 ug/g Dry wt	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
10972 Body		10-80 ug/g Dry wt	42.0 ug/g Dry wt	Collected during 1978-80 Levels higher during post-monsoon (Oct-Jan). India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Nonane
111-84-2
C9-H2O
MW 128.26, MP -53.7 C, also reported as -51 C, BP 150.7 C, VP 10 mm Hg at 38.0 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10973 Body		Not given	24 ppb Wet wt	The Rigolets, navigable channel into Lake Pontchartrain, specimens collected May-June, 1980. 5 samples. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Nonane
111-84-2
C9-H2O
MW 128.26, MP -53.7 C, also reported as -51 C, BP 150.7 C, VP 10 mm Hg at 38.0 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10974 Body		Not given	25 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Nonane, methyl-
63335-87-5
C10-H22

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10975 Body		Not given	5.5 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Nonene
27215-95-8
C9-H18
MW 126.27, BP 135-140 C at 1 atm

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10976 Body		Not given	1.6 ppb Wet wt	a) Chef Menteur Pass, navigable channel into Lake Pontchartrain, specimens collected May-June, 1980. 5 samples. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Nonene

27215-95-8
C9-H18
MW 126.27, BP 135-140 C at 1 atm

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10977 Body		Not given	0.5 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

o-Cresol, 4-chloro-alpha-phenyl- (8 CI); Phenol, 4-chloro-2-(phenylmethyl)- (9 CI)

120-32-1
C13-H11-Cl-O
MW 218.69, MP 48.5 C, BP 160-162 C at 3.5 mm Hg

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10978 Adipose		a) Not given b) Not given c) Not given d) Not given	a) 70 b) 170 c) 40 d) 90 umole eq/gX10(E+4)	a) Abdominal fat, dose of 69 mg/kg b) 206 mg/kg c) Testicular fat, dose of 69 mg/kg d) 206 mg/kg Estimated from bar graph of tissue distribution of radioactivity, 5 d post-dose. Scintillation counting
DELIBERATE EXPOSURE; RATS; TERRESTRIAL; KIDNEYS; LIVER; ADIPOSE TISSUE; TESTES; INTESTINES; LUNGS; CHLORINE ORGANIC COMPOUNDS; POLYCYCLIC AROMATIC HYDROCARBONS Ridley, W.P.; Sewall, M.R.; Dietrich, M.W. 1986 Journal of Toxicology and Environmental Health 18:267-283				

o-Cresol, 4-chloro-alpha-phenyl- (8 CI); Phenol, 4-chloro-2-(phenylmethyl)- (9 CI)
120-32-1
C13-H11-Cl-O
MW 218.69, MP 48.5 C, BP 160-162 C at 3.5 mm Hg

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10979 Adipose	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0 b) 0.02% c) 0.004% d) 0.016% e) 0.002%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
10980 Adrenal gland	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0 b) 0 c) 0 d) 0 e) 0.002%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
10981 Blood	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.26% b) 0.06% c) 0.10% d) 0.06% e) 0.19%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
RATS; METABOLISM; DELIBERATE EXPOSURE; BLOOD; URINE; LIVER; KIDNEYS; INTESTINES; SPLEEN; ADRENAL GLANDS; SKIN; ADIPOSE TISSUE; MUSCLES; BRAIN; TESTES; LUNGS; HEART; TERRESTRIAL Kao, L.R.; Birnbaum, L.S. 1986 Journal of Toxicology and Environmental Health 18:441-458				

Tissue	Cases Exposure Route	Range	Mean	General Information
10982 Blood		a) Not given b) Not given	a) 12 b) 30 umole eq/gX10(E+4)	a) Dose of 69 mg/kg b) 206 mg/kg Estimated from bar graph of tissue distribution of radioactivity, 5 d post-dose. Scintillation counting
DELIBERATE EXPOSURE; RATS; TERRESTRIAL; KIDNEYS; LIVER; ADIPOSE TISSUE; TESTES; INTESTINES; LUNGS; CHLORINE ORGANIC COMPOUNDS; POLYCYCLIC AROMATIC HYDROCARBONS Ridley, W.P.; Sewall, M.R.; Dietrich, M.W. 1986 Journal of Toxicology and Environmental Health 18:267-283				

o-Cresol, 4-chloro-alpha-phenyl- (8 CI); Phenol, 4-chloro-2-(phenylmethyl)- (9 CI)
120-32-1
C13-H11-Cl-O
MW 218.69, MP 48.5 C, BP 160-162 C at 3.5 mm Hg

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10983 Brain	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0 b) 0.001% c) 0 d) 0 e) 0	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
10984 Heart	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0 b) 0.0041% c) 0.0002% d) 0.0003% e) 0.004%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting

RATS; METABOLISM; DELIBERATE EXPOSURE; BLOOD; URINE; LIVER; KIDNEYS; INTESTINES; SPLEEN; ADRENAL GLANDS; SKIN; ADIPOSE TISSUE; MUSCLES; BRAIN; TESTES; LUNGS; HEART; TERRESTRIAL

Kao, L.R.; Birnbaum, L.S. 1986 Journal of Toxicology and Environmental Health 18:441-458

Tissue	Cases Exposure Route	Range	Mean	General Information
10985 Intestine		a) Not given b) Not given c) Not given d) Not given	a) 15 b) 30 c) 13 d) 25 umole eq/gX10(E+4)	a) Large intestine, dose of 69 mg/kg b) 206 mg/kg c) Small intestine, dose of 69 mg/kg d) 206 mg/kg Estimated from bar graph of tissue distribution of radioactivity, 5 d post-dose. Scintillation counting

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; KIDNEYS; LIVER; ADIPOSE TISSUE; TESTES; INTESTINES; LUNGS; CHLORINE ORGANIC COMPOUNDS; POLYCYCLIC AROMATIC HYDROCARBONS

Ridley, W.P.; Sewall, M.R.; Dietrich, M.W. 1986 Journal of Toxicology and Environmental Health 18:267-283

o-Cresol, 4-chloro-alpha-phenyl- (8 CI); Phenol, 4-chloro-2-(phenylmethyl)- (9 CI)
120-32-1
C13-H11-Cl-O
MW 218.69, MP 48.5 C, BP 160-162 C at 3.5 mm Hg

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10986 Intestine	15	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given	a) 0.03% b) 0.047% g) 0.009% d) 0.11% e) 0 f) 0.01% g) 0.04% h) 0.004% i) 0.17% j) 0.009%	a) Measured in small intestine, IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg f) Measured in large intestine, IV, 10 mg/kg g) Dermal, 10 mg/kg h) Oral, 10 mg/kg i) Oral, 100 mg/kg j) Oral, 1000 mg/kg Percent of dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
RATS; METABOLISM; DELIBERATE EXPOSURE; BLOOD; URINE; LIVER; KIDNEYS; INTESTINES; SPLEEN; ADRENAL GLANDS; SKIN; ADIPOSE TISSUE; MUSCLES; BRAIN; TESTES; LUNGS; HEART; TERRESTRIAL Kao, L.R.; Birnbaum, L.S. 1986 Journal of Toxicology and Environmental Health 18:441-458				

Tissue	Cases Exposure Route	Range	Mean	General Information
10987 Kidney		a) Not given b) Not given	a) 180 b) 400 umole eq/gX10(E+4)	a) Dose of 69 mg/kg b) 206 mg/kg Estimated from bar graph of tissue distribution of radioactivity, 5 d post-dose. Scintillation counting
DELIBERATE EXPOSURE; RATS; TERRESTRIAL; KIDNEYS; LIVER; ADIPOSE TISSUE; TESTES; INTESTINES; LUNGS; CHLORINE ORGANIC COMPOUNDS; POLYCYCLIC AROMATIC HYDROCARBONS Ridley, W.P.; Sewall, M.R.; Dietrich, M.W. 1986 Journal of Toxicology and Environmental Health 18:267-283				

Tissue	Cases Exposure Route	Range	Mean	General Information
10988 Kidney	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.10% b) 0.09% c) 0.07% d) 0.08% e) 0.04%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
RATS; METABOLISM; DELIBERATE EXPOSURE; BLOOD; URINE; LIVER; KIDNEYS; INTESTINES; SPLEEN; ADRENAL GLANDS; SKIN; ADIPOSE TISSUE; MUSCLES; BRAIN; TESTES; LUNGS; HEART; TERRESTRIAL Kao, L.R.; Birnbaum, L.S. 1986 Journal of Toxicology and Environmental Health 18:441-458				

o-Cresol, 4-chloro-alpha-phenyl- (8 CI); Phenol, 4-chloro-2-(phenylmethyl)- (9 CI)
120-32-1
C13-H11-Cl-O
MW 218.69, MP 48.5 C, BP 160-162 C at 3.5 mm Hg

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10989 Liver		a) Not given b) Not given	a) 70 b) 190 umole eq/gX10(E+4)	a) Dose of 69 mg/kg b) 206 mg/kg Estimated from bar graph of tissue distribution of radioactivity, 5 d post-dose. Scintillation counting
DELIBERATE EXPOSURE; RATS; TERRESTRIAL; KIDNEYS; LIVER; ADIPOSE TISSUE; TESTES; INTESTINES; LUNGS; CHLORINE ORGANIC COMPOUNDS; POLY-CYCLIC AROMATIC HYDROCARBONS Ridley, W.P.; Sewall, M.R.; Dietrich, M.W. 1986 Journal of Toxicology and Environmental Health 18:267-283				

Tissue	Cases Exposure Route	Range	Mean	General Information
10990 Liver	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.63% b) 0.11% c) 0.14% d) 0.14% e) 0.07%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 *mCi/mmol*. Scintillation counting
RATS; METABOLISM; DELIBERATE EXPOSURE; BLOOD; URINE; LIVER; KIDNEYS; INTESTINES; SPLEEN; ADRENAL GLANDS; SKIN; ADIPOSE TISSUE; MUSCLES; BRAIN; TESTES; LUNGS; HEART; TERRESTRIAL Kao, L.R.; Birnbaum, L.S. 1986 Journal of Toxicology and Environmental Health 18:441-458				

Tissue	Cases Exposure Route	Range	Mean	General Information
10991 Lung		a) Not given b) Not given	a) 5 b) 27 umole eq/gX10(E+4)	a) Dose of 69 mg/kg b) 206 mg/kg Estimated from bar graph of tissue distribution of radioactivity, 5 d post-dose. Scintillation counting
DELIBERATE EXPOSURE; RATS; TERRESTRIAL; KIDNEYS; LIVER; ADIPOSE TISSUE; TESTES; INTESTINES; LUNGS; CHLORINE ORGANIC COMPOUNDS; POLY-CYCLIC AROMATIC HYDROCARBONS Ridley, W.P.; Sewall, M.R.; Dietrich, M.W. 1986 Journal of Toxicology and Environmental Health 18:267-283				

o-Cresol, 4-chloro-alpha-phenyl- (8 CI); Phenol, 4-chloro-2-(phenylmethyl)- (9 CI)
120-32-1
C13-H11-Cl-O
MW 218.69, MP 48.5 C, BP 160-162 C at 3.5 mm Hg

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10992 Lung	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.01% b) 0.0014% c) 0.0012% d) 0.002% e) 0.002%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
10993 Muscle	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0 b) 0.15% c) 0.11% d) 0.16% e) 0.21%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
10994 Skin	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.10% b) 0.23% c) 0.07% d) 0.08% e) 0.01%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
10995 Spleen	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.01% b) 0.0007% c) 0.0002% d) 0.001% e) 0.002%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting

RATS; METABOLISM; DELIBERATE EXPOSURE; BLOOD; URINE; LIVER; KIDNEYS; INTESTINES; SPLEEN; ADRENAL GLANDS; SKIN; ADIPOSE TISSUE; MUSCLES; BRAIN; TESTES; LUNGS; HEART; TERRESTRIAL

Kao, L.R.; Birnbaum, L.S. 1986 Journal of Toxicology and Environmental Health 18:441-458

o-Cresol, 4-chloro-alpha-phenyl- (8 CI); Phenol, 4-chloro-2-(phenylmethyl)- (9 CI)
120-32-1
C13-H11-Cl-O
MW 218.69, MP 48.5 C, BP 160-162 C at 3.5 mm Hg

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10996 Testis		a) Not given b) Not given	a) 20 b) 50 umole eq/gX10(E+4)	a) Dose of 69 mg/kg b) 206 mg/kg Estimated from bar graph of tissue distribution of radioactivity, 5 d post-dose. Scintillation counting
DELIBERATE EXPOSURE; RATS; TERRESTRIAL; KIDNEYS; LIVER; ADIPOSE TISSUE; TESTES; INTESTINES; LUNGS; CHLORINE ORGANIC COMPOUNDS; POLYCYCLIC AROMATIC HYDROCARBONS Ridley, W.P.; Sewall, M.R.; Dietrich, M.W. 1986 Journal of Toxicology and Environmental Health 18:267-283				

Tissue	Cases Exposure Route	Range	Mean	General Information
10997 Testis	a) 3 b) 3 c) 3 d) 3 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0 b) 0 c) 0 d) 0.001% e) 0.003%	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Percent of total dose measured at 72 hr post-administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
10998 Urine	a) 3 b) 3 c) 3 d) 3 e) 3	a) 32.21+/-7.62-34.89+/-8.64% b) 17.04+/-5.32-24.66+/-6.46% c) 22.88+/-4.91-24.46+/-5.37% d) 37.79+/-2.13-53.73+/-4.61% e) 23.97+/-2.60-30.50+/-3.35% Ranges of means	a) Not given b) Not given c) Not given d) Not given e) Not given	a) IV dose, 10 mg/kg b) Dermal, 10 mg/kg c) Oral, 10 mg/kg d) Oral, 100 mg/kg e) Oral, 1000 mg/kg Ranges of means daily excretion as percentage of total dose, measured for 3 d after administration to Fischer-344 rats, wt 180-220 g. [phenyl-U-14-C]-BCP had specific activity of 22.9 mCi/mmol. Scintillation counting
RATS; METABOLISM; DELIBERATE EXPOSURE; BLOOD; URINE; LIVER; KIDNEYS; INTESTINES; SPLEEN; ADRENAL GLANDS; SKIN; ADIPOSE TISSUE; MUSCLES; BRAIN; TESTES; LUNGS; HEART; TERRESTRIAL Kao, L.R.; Birnbaum, L.S. 1986 Journal of Toxicology and Environmental Health 18:441-458				

o-Toluidine (8 CI); Benzenamine, 2-methyl- (9 CI)
95-53-4
C7-H9-N
MW 107.15, BP 200-202 C, VP 1 mm Hg at 44 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10999 Body	a) 3 b) 3 c) 3 d) 3	a) Not given b) Not given c) Not given d) Not given	a) 6.8+/-3.4 ug/g b) 19.8+/-9.3 ug/g c) 24.5+/-7.0 ug/g d) 23.0+/-4.2 ug/g Dry wt	a) 1 hr b) 2 hr c) 4 hr d) 24 hr After 5 mg/L exposure. California, Tomales Bay Scintillation counting
11000 Gills	3	Not given	120+/-10 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Tomales Bay Scintillation counting
11001 Mantle	3	Not given	75+/-10 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Tomales Bay Scintillation counting
11002 Muscle	3	Not given	70+/-10 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Tomales Bay Scintillation counting
11003 Viscera	3	Not given	95+/-15 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Tomales Bay Scintillation counting
MANTLE; MUSCLES; VISCERA; GILLS; MUSSELS; OYSTERS; AQUATIC; DELIBERATE EXPOSURE; CALIFORNIA; INDUSTRIAL CHEMICALS; NITROSAMINES; BIOACCUMULATION; METABOLISM; METABOLITES; WATER POLLUTION Knezovich, J.P.; Crosby, D.G. 1985 Environmental Toxicology and Chemistry 4:435-446				

Oyster, Pacific
CRASSOSTREA GIGAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11004 Body	a) 3 b) 3 c) 3 d) 3	a) Not given b) Not given c) Not given d) Not given	a) 18.1+/-2.6 ug/g b) 22.7+/-1.7 ug/g c) 21.5+/-0.7 ug/g d) 21.2+/-3.4 ug/g Dry wt	a) 1 hr b) 2 hr c) 4 hr d) 24 hr After 5 mg/L exposure. California, Drakes Bay Scintillation counting

(next page)

o-Toluidine (8 CI); Benzenamine, 2-methyl- (9 CI)

95-53-4
C7-H9-N
MW 107.15, BP 200-202 C, VP 1 mm Hg at 44 C

Oyster, Pacific
CRASSOSTREA GIGAS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11005 Gills	3	Not given	70+/-15 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Drakes Bay Scintillation counting
11006 Mantle	3	Not given	65+/-5 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Drakes Bay Scintillation counting
11007 Muscle	3	Not given	65+/-5 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Drakes Bay Scintillation counting
11008 Viscera	3	Not given	70+/-10 ug/g Dry wt	After 4 hr exposure to 5 mg/L. Depuration metabolites also examined. Estimated from graph. California, Drakes Bay Scintillation counting
MANTLE; MUSCLES; VISCERA; GILLS; MUSSELS; OYSTERS; AQUATIC; DELIBERATE EXPOSURE; CALIFORNIA; INDUSTRIAL CHEMICALS; NITROSAMINES; BIOACCUMULATION; METABOLISM; METABOLITES; WATER POLLUTION Knezovich, J.P.; Crosby, D.G. 1985 Environmental Toxicology and Chemistry 4:435-446				

Octane

111-65-9
C8-H18
MW 114.22, MP -56.8 C, BP 12V.6 C at 760 mm Hg, VP 10 mm Hg at 19.2 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11009 Body		Not given	22 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Octane, dimethyl-
63335-88-6
C10-H22
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11010 Body		Not given	0.1 ppb Wet wt	The Rigolets, navigable channel into Lake Pontchartrain, specimens collected May-June, 1980. 5 samples. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11011 Body		Not given	8.7 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Octene
25377-83-7
C8-H16
MW 112.21
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11012 Body		Not given	0.8 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Oxamidic acid, N',N'-dimethyl-N-((methylcarbamoyl)oxy)-1-thio-, methyl ester (8 CI); Ethanimidothioic acid, 2-(dimethylamino)-N-(((methylamino)carbonyl)oxy)-2-oxo, methyl ester (9 CI)
23135-22-0
C7-H13-N3-O3-S
Earthworm
LUMBRICUS TERRESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11013 Body				Review discusses vital role of earthworms in the environment and their usefulness as test organisms, and it summarizes chemical toxicity data from field and laboratory investigations.
EARTHWORMS; TERRESTRIAL; REVIEW; BIOACCUMULATION; PESTICIDE RESIDUES; INSECTICIDES; BIOINDICATORS; LEAD; ZINC; DDT; METABOLITES; METABOLISM; DELIBERATE EXPOSURE Roberts, B.L.; Dorough, H.W. 1985 Environmental Toxicology and Chemistry 4:307-323				

Earthworm, red
LUMBRICUS RUBELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11014 Body				Review discusses vital role of earthworms in the environment and their usefulness as test organisms, and it summarizes chemical toxicity data from field and laboratory investigations.
EARTHWORMS; TERRESTRIAL; REVIEW; BIOACCUMULATION; PESTICIDE RESIDUES; INSECTICIDES; BIOINDICATORS; LEAD; ZINC; DDT; METABOLITES; METABOLISM; DELIBERATE EXPOSURE Roberts, B.L.; Dorough, H.W. 1985 Environmental Toxicology and Chemistry 4:307-323				

p-Toluidine, alpha,alpha,alpha-trifluoro-2,6-dinitro-N,N-dipropyl- (8 CI); Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)- (9 CI)
1582-09-8
C13-H16-F3-N3-O4
MW 335.29, MP 46-47 C, BP 139-140 C at 4.2 mm Hg
Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11015 Body		Not applicable	<0.002 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

p-Toluidine, alpha,alpha,alpha-trifluoro-2,6-dinitro-N,N-dipropyl- (8 CI); Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)- (9 CI)
1582-09-8
C13-H16-F3-N3-O4
MW 335.29, MP 46-47 C, BP 139-140 C at 4.2 mm Hg

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11016 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11017 Body		Not applicable	<0.002 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11018 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

p-Toluidine, alpha,alpha,alpha-trifluoro-2,6-dinitro-N,N-dipropyl- (8 CI); Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)- (9 CI)
1582-09-8
C13-H16-F3-N3-O4
MW 335.29, MP 46-47 C, BP 139-140 C at 4.2 mm Hg

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11019 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11020 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) 0.007 mg/kg b) <0.002 mg/kg c) <0.002 mg/kg d) <0.002 mg/kg e) <0.002 mg/kg f) <0.002 mg/kg g) <0.002 mg/kg h) <0.002 mg/kg i) <0.002 kg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

p-Toluidine, alpha,alpha,alpha-trifluoro-2,6-dinitro-N,N-dipropyl- (8 CI); Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)- (9 CI)
1582-09-8
C13-H16-F3-N3-O4
MW 335.29, MP 46-47 C, BP 139-140 C at 4.2 mm Hg

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11021 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11022 Body		a) Not applicable b) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11023 Body	a) 5 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 126 mg b) 130 mg c) 3 mg d) 0 /L homogenate	a) Dose 0.5 mg/L, actual experimental value 1.52 mg/L b) Dose 0.25, actual 0.16 mg/L c) Dose 0.01, actual 0.0076 mg/L d) Controls 16-hr exposures in separate tanks. Whole homogenates 10 d after exposure. Scotland, Pitlochry hatchery At 2 highest doses, loss of equilibrium during dosing (recovery after several hours) and vertebral damage GC/MS

DELIBERATE EXPOSURE; AQUATIC; FISHES; PESTICIDES; HERBICIDES; WATER POLLUTION; BODY; SCOTLAND; BONE DISEASES
Wells, D.E.; Cowan, A.A. 1982 Environmental Pollution (Series A) 29:249-260

p-Toluidine, alpha,alpha,alpha-trifluoro-2,6-dinitro-N,N-dipropyl- (8 CI); Benzenamine, 2,6-dinitro-N,N-dipropyl-4-(trifluoromethyl)- (9 CI)
1582-09-8
C13-H16-F3-N3-O4
MW 335.29, MP 46-47 C, BP 139-140 C at 4.2 mm Hg

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11024 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11025 Body		Not applicable	<0.002 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11026 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg c) <0.002 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Pentadiene
41050-31-1
C5-H8
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11027 Body		Not given	1.4 ppb Wet wt	The Rigolets, navigable channel into Lake Pontchartrain, specimens collected May-June, 1980. 5 samples. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION				
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11028 Body		Not given	3.2 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane.
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION				
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Pentane, ethyldimethyl
86571-39-3
C9-H20
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11029 Body		Not given	0.2 ppb Wet wt	The Rigolets, navigable channel into Lake Pontchartrain, specimens collected May-June, 1980. 5 samples. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION				
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Pentane, ethyldimethyl
86571-39-3
C9-H20
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11030 Body		Not given	1.0 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS

BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255

Pentane, trimethyl-
29222-48-8
C8-H18
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11031 Body		Not given	1.3 ppb Wet wt	Chef Menteur Pass, navigable channel into Lake Pontchartrain, specimens collected May-June, 1980. 5 samples. Louisiana GC/MS

BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11032 Body		Not given	0.2 ppm Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Composite samples. Louisiana GC/MS

BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255

Pentanol, ethylmethyl- (No postings in CHEMLINE).

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11033 Body		Not given	2.5 ppb Wet wt	Chef Menteur Pass, navigable channel into Lake Pontchartrain, specimens collected May-June, 1980. 5 samples. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Pentene, ethyl-
88448-74-2
C7-H14
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11034 Body		Not given	8.0 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Perylene
198-55-0
C20-H12
MW 252.30, MP 273-274 C, sublimes 350-400 C

Clam
TRIDACNA MAXIMA

Tissue	Cases Exposure Route	Range	Mean	General Information
11035 Body		a) <0.01-0.08 ug/g b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) <0.02-0.08 ug/g h) Not applicable i) Not applicable j) <0.02-<0.02 mg/g	a) Not given b) <0.02 ug/g c) <0.08 ug/g d) <0.02 ug/g e) <0.02 ug/g f) <0.02 ug/g g) Not given h) <0.02 ug/g i) <0.02 ug/g j) <0.02 ug/g	a) Heron Island, 7 sites b) Polmaise Reef, 1 site c) Masthead Island, 1 site d) Wistari Reef e) One Tree Island, 1 site f) Wreck Island, 1 site g) Lizard Island, 4 sites h) Carter Reef, 1 site i) Flinder's Reef, 1 site j) Orpheus Island, 3 sites Collections in Great Barrier Reef. Levels are lowest reported in the world. Australia, Great Barrier Reef Fluorimetry
BODY; CLAMS; AQUATIC; ENVIRONMENTAL EXPOSURE; AUSTRALIA; POLYCYCLIC AROMATIC HYDROCARBONS; WATER POLLUTION; LAND POLLUTION; BIOACCUMULATION; ANIMAL POPULATIONS Smith, J.D.; Bagg, J.; Bycroft, B.M. 1985 Environmental Science and Technology 18(5):353-358				

Mussel
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11036 Body	a) 29 b) 28	a) Not given b) Not given	a) 14 ppb b) 1 ppb Wet wt	a) Western, industrial area b) Eastern, agricultural area One of 17 PAHs measured. Total PAH was 110 ng/g, carcinogenic PAH 38 ng/g (values in eastern area were 77 and 14 ng/g, respectively. Greece, Thermaikos Gulf GC
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; MOLLUSKS; WATER POLLUTION; POLYCYCLIC AROMATIC HYDROCARBONS; GREECE; BODY; CARCINOGEN Iosifidou, H.G.; Kilikidis, S.D.; Kamarianos, A.P. 1982 Bulletin of Environmental Contamination and Toxicology 28:535-541				

Petroleum hydrocarbons (No postings in CHEMLINE).
EXACT COMPOSITION UNKNONWN OR UNDETERMINED
Clam (M. balthica)
MACOMA BALTHICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11037 Body	a) 200 b) 50 c) 200 d) 50	a) 41.0-87.0 ug/g b) Not applicable c) 17.6-28.2 ug/g d) Not applicable Wet wt	a) Not given b) 46.0 ug/g c) Not given d) 16.5 ug/g Wet wt	a) Inner zone of archipelago, paraffin-naphthene fraction b) Marina single source, paraffin-naphthene c) Inner zone of archipelago, aromatic fraction (sites A-F) d) Marina single source (sites A-F) Collection sites in Stockholm Archipelago according to location or source of contaminant, and hydrocarbon fraction. Sweden GC; Fluorimetry
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; SWEDEN; ADULTS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIES Broman, D.; Ganning, B. 1985 Ambio 14(1):23-28				

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11038 Body	a) 200 b) 320 c) 80 d) 120 e) 200 f) 320 g) 80 h) 120	a) 5.6-13.0 ug/g b) 9.5-33.0 ug/g c) 25.0-31.0 ug/g d) 21.0-54.0 ug/g e) 2.9-5.5 ug/g f) 3.7-13.8 ug/g g) 5.4-6.0 ug/g h) 8.0-12.3 ug/g Wet wt	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) Outer zone of archipelago, paraffin-naphthene fraction b) Middle zone of archipelago, paraffin-naphthene c) Single source, leisure boat traffic, paraffin-naphthene d) Marina, ferry port, or oil refinery, paraffin-naphthene e) Outer zone of archipelago, aromatic fraction (sites A-F) f) Middle zone of archipelago, (sites A-F) g) Single source, leisure boat traffic (sites A-F) h) Marina, ferry port, or oil refinery (sites A-F) Collection sites in Stockholm Archipelago according to location or source of contaminant, and hydrocarbon fraction. Sweden GC; Fluorimetry
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; SWEDEN; ADULTS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIES Broman, D.; Ganning, B. 1985 Ambio 14(1):23-28				

Phenanthrene
85-01-8
C14-H10
MW 178.22, MP 100 C, BP 340 C, VP 1 mm Hg at 118.3 C
Burbot
LOTA LOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11039 Gall bladder		Not given	44 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS

(next page)

Phenanthrene
85-01-8
C14-H10
MW 178.22, MP 100 C, BP 340 C, VP 1 mm Hg at 118.3 C

Burbot
LOTA LOTA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11040 Liver		Not given	86 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11041 Muscle		Not given	14 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11042 Body		Not given	72 ppb Wet wt	Composite sample, collected 5/80-6/80, The Rigolets at Lake Pontchartrain. Concentrations expressed as d10-anthracene equivalents. Adjusted for percent recovery. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11043 Muscle		Not detected	Not detected	Collected from 2 sites, 11/7, 10/20, 12/1/78. Detection limit 0.5 ug/kg. Composite samples. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Phenanthrene
85-01-8
C14-H10
MW 178.22, MP 100 C, BP 340 C, VP 1 mm Hg at 118.3 C

Mussel
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11044 Body	a) 29 b) 28	a) Not given b) Not given	a) 9 ppb b) 9 ppb Wet wt	a) Western, industrial area b) Eastern, agricultural area One of 17 PAHs measured. Total PAH was 110 ng/g, carcinogenic PAH 38 ng/g (values in eastern area were 77 and 14 ng/g, respectively. Greece, Thermaikos Gulf GC
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; MOLLUSKS; WATER POLLUTION; POLYCYCLIC AROMATIC HYDROCARBONS; GREECE; BODY; CARCINOGEN Iosifidou, H.G.; Kilikidis, S.D.; Kamarianos, A.P. 1982 Bulletin of Environmental Contamination and Toxicology 28:535-541				

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11045 Body		a) Not detected-109 ug/kg b) Not detected-41 ug/kg Wet wt	a) Not given b) Not given	a) Collections from 4 sites, 10/9 and 10/12/78 b) From 3 sites, 5/9, 5/23, 6/5/79 Detection limit 0.5 ug/kg. Composite samples of at least 10 individuals analyzed. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11046 Body		Not given	220 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Phenanthrene
85-01-8
C14-H10
MW 178.22, MP 100 C, BP 340 C, VP 1 mm Hg at 118.3 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11047 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) 0.3-0.4 ug/g Dry wt	a) 0 ug/g b) 0.4 ug/g c) 1.0 ug/g d) 0.1 ug/g e) 0 ug/g f) Not given Dry wt	a) Wreck Shoals, James River b) Deepwater Shoals, James River c) White Shoals, James River d) Hospital Point, Elizabeth River e) Piankatank River oysters relocated for 6 d at Hospital Point, Elizabeth River f) Piankatank River oysters relocated for 6 d at S217, Elizabeth River Collection sites. Levels generally correspond with degree of industrial and urban development and shipping traffic in habitats. Minimum detection limit of PAH's 0.1-0.2 ug/g dry wt. Virginia GC
BODY; OYSTERS; AQUATIC; ENVIRONMENTAL EXPOSURE; VIRGINIA; POLYCYCLIC AROMATIC HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; INDUSTRIES Pittinger, C.A.; Bulkema, A.L.; Hornor, S.G.; Young, R.W. 1985 Environmental Toxicology and Chemistry 4:379-387				

Tissue	Cases Exposure Route	Range	Mean	General Information
11048 Body		a) Not detectable-76.5+/-13.0 ug/kg b) Not detectable-9.7+/-9.0 ug/kg c) Not detectable-16.0+/-27.6 ug/kg d) Not detectable-5.1+/-6.8 ug/kg	a) Not given b) Not given c) Not given d) Not given	a) Palmetto Bay Marina, 10 sites, spring b) Summer c) Outdoor Resorts Marina, 8 sites, spring d) Summer Pooled, 15 adults/sample, collected weekly from mid-intertidal areas of reefs in different sites at each marina. 3/29-4/14/83 and 7/26-8/11/83. For each group, n=3. Ranges of means. Detection limit 8.0 ug/kg. South Carolina, Beaufort County HPLC
AQUATIC; ENVIRONMENTAL EXPOSURE; MOLLUSKS; SOUTH CAROLINA; WATER POLLUTION; FOOD CONTAMINATION; BENZOPYRENE; POLYCYCLIC AROMATIC HYDROCARBONS Marcus, J.M.; Stokes, T.P. 1985 Bulletin of Environmental Contamination and Toxicology 35:835-844				

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11049 Gall bladder		Not given	142 ug/kg Wet wt	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS

(next page)

Phenanthrene
85-01-8
C14-H10
MW 178.22, MP 100 C, BP 340 C, VP 1 mm Hg at 118.3 C

Pike-perch
STIZOSTEDION LUCIOPERCA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11050 Liver		Not given	43 ug/kg Wet wt	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11051 Muscle		8-11 ug/kg Wet wt	Not given	Collected from 2 sites, 12/1/78, 7/3/79. Detection limit 0.5 ug/kg. Composite samples. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Phenanthrene, methyl- (No postings in CHEMLINE).
C15-H12
MW 192.26

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11052 Body		Not given	2.8 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Concentrations expressed as d10-anthracene equivalents. Adjusted for percent recovery. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Phenol, ethyl-
25429-37-2
C8-H10-O
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11053 Body		Not given	1.4 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Phenol, o-chloro- (8 CI); Phenol, 2-chloro- (9 CI)
95-57-8
C6-H5-Cl-O
MW 128.56, MP 9.3 C, BP 175 C
Goldfish
CARASSIUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11054 Body				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Sunfish, Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11055 Body				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Phenol, p-chloro- (8 CI); Phenol, 4-chloro- (9 CI)

106-48-9
C6-H5-Cl-O
MW 128.56, MP 43.2-43.7 C, BP 220 C

Goldfish
CARASSIUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11056 Body				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.

WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS
Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860

Phenol, pentachloro-

87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11057 Body		Not applicable	<0.08 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
11058 Body, whole		Not given	10 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 25.66 g tissue. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION
Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11059 Body		Not applicable	<0.24 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullfrog
RANA CATESBEIANA

Tissue	Cases Exposure Route	Range	Mean	General Information
11060 Body, whole		Not given	19 ng/g (ppb) Wet wt	Tadpole, 3.8 g, 11/13/80. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11061 Body		Not applicable	<02.30 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phenol, pentachloro-

87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11062 Body		Not applicable	<0.20 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11063 Body		Not applicable	<0.20 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Burbot
LOTA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11064 Muscle	110	Not given	2.60+/-6.65 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Phenol, pentachloro-

87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11065 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) <0.20 mg/kg b) <0.10 mg/kg c) <0.10 mg/kg d) 4.52 mg/kg e) <0.40 mg/kg f) <0.12 mg/kg g) <0.12 mg/kg h) <2.84 mg/kg i) <0.08 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION *DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594*				

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11066 Adipose	1 Ingestion	Not given	343 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11067 Adrenal gland	1 Ingestion	Not given	923 ppb	Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 2878 dpm/g wet wt. GC; Scintillation counting
11068 Bile	1 Ingestion	Not given	5756 dpm/mL	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11069 Blood, serum	1 Ingestion	Not given	6302+/-132 ppb S.E.	Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 9240 dpm/mL GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11070 Blood, serum	a) 3 b) 3 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 100 ppm b) 90 ppm c) 40 ppm d) 35 ppm e) 0.6 ppm	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Levels estimated from graph. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11071 Brain	1 Ingestion	Not given	343 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11072 Gall bladder	1 Ingestion	Not given	4047 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11073 Heart	1 Ingestion	Not given	1000 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11074 Kidney	1 Ingestion	Not given	1792 ppb	Collected at necropsy on d 99 after single of dose 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 4941 dpm/g wet wt. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinsell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11075 Kidney	a) 2 b) 3 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 5.15+/-0.73 ppm b) 4.60+/-0.38 ppm c) 1.40+/-0.24 ppm d) 1.17+/-0.20 ppm e) 0.11+/-0.01 ppm	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Level sensitivity=1 ppm. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11076 Liver	1 Ingestion	Not given	1624 ppb	Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 7964 dpm/g wet wt. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11077 Liver	a) 2 b) 3 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 4.08+/-0.38 ppm b) 4.61+/-0.51 ppm c) 1.13+/-0.04 ppm d) 1.02+/-1.2 ppm e) <0.10 ppm S.E.	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Level sensitivity=1 ppm. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11078 Lung	1 Ingestion	Not given	981 ppb	Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 3562 dpm/g wet wt. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11079 Lung	a) 2 b) 3 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 3.37+/-0.03 ppm b) 3.67+/-0.33 ppm c) 1.15+/-0.39 ppm d) 0.96+/-0.14 ppm e) 0.12+/-0.01 ppm	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Level sensitivity=1 ppm. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11080 Lymph	1 Ingestion	Not given	8873 dpm/mL	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11081 Lymph node	1 Ingestion	Not given	942 ppb	Collected at necropsy on d 99 after admin of single dose 815 uCi C(14)-labelled PCP given on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 2499 dpm/g wet wt. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11082 Lymph node	a) 2 b) 3 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 3.40+/-0.13 ppm b) 3.00+/-0.38 ppm c) 0.62+/-0.15 ppm d) 0.57+/-0.12 ppm e) <0.10 ppm	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Level sensitivity=1 ppm. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11083 Mammary gland	1 Ingestion	Not given	2753 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11084 Milk	1 Ingestion	Not given	1035+/-30 ppb S.E.	Last 7 samples collected at 4 hr intervals from 52-76 hr after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d of technical PCP for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 1369 dpm/mL. GC; Scintillation counting
11085 Muscle	1 Ingestion	Not given	409 ppb	Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 844 dpm/g wet wt. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11086 Muscle	a) 1 b) 2 c) 1 d) 2 e) 2 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 1.66 ppm b) 1.35+/-0.26 ppm c) 0.42 ppm d) 0.36+/-0.03 ppm e) 0.18+/-0.01 ppm	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Level sensitivity=1 ppm. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11087 Ovary	1 Ingestion	Not given	1693 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11088 Pancreas	1 Ingestion	Not given	1550 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11089 Spinal cord	1 Ingestion	Not given	210 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
11090 Spinal fluid	1 Ingestion	Not given	256 dpm/mL	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting

(next page)

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11091 Spleen	1 Ingestion	Not given	964 dpm/g Wet wt	C(14) activity. Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Tissue	Cases Exposure Route	Range	Mean	General Information
11092 Thymus	a) 2 b) 2 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 3.01+/-0.11 ppm b) 6.76+/-0.25 ppm c) 0.76+/-0.17 d) 0.81+/-0.04 ppm e) 0.48+/-0.01 ppm	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Level sensitivity=1 ppm. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11093 Thyroid gland	1 Ingestion	Not given	1103 ppb	Collected at necropsy on d 99 after single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11094 Thyroid gland	a) 2 b) 2 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 1.19+/-0.18 ppm b) 1.59+/-0.62 ppm c) 0.51+/-0.12 ppm d) 0.45+/-0.07 ppm e) <0.10 ppm	a) Fed 10 mg/kg body wt, analytical grade b) Technical grade c) Fed 1 mg/kg body wt, analytical grade d) Technical grade e) Fed no PCP 7 d old Holstein bull calves on feeding schedules for 35 days. Level sensitivity=1 ppm. Anorexia, decreased wt gain. Decreased serum proteins, elevated gamma glutamyl transferase, decreased T3 and T4. Cortical atrophy, thymus. Squamus metaplasia, hyperkeratous changes, Meibomian gland. Decreased wt, lung, spleen, thymus. Decreased active transport by kidney in vitro. GC-EC
DELIBERATE EXPOSURE; CATTLE; TERRESTRIAL; BLOOD SERUM; LIVER; LUNGS; KIDNEYS; THYROID GLANDS; THYMUS; LYMPH NODES; MUSCLES; PENTACHLOROPHENOL; WOOD PRESERVATIVES Hughes, B.J.; Forsell, J.H.; Sleight, S.D.; Kuo, C.; Shull, L.R. 1985 Journal of Animal Science 61(6):1587-1603				

Tissue	Cases Exposure Route	Range	Mean	General Information
11095 Urine	1 Ingestion	Not given	7047+/-286 ppb S.E.	Last 7 samples collected at 4 hr intervals from 52-76 hr of single dose of 815 uCi C(14)-labelled PCP on d 95. Fed 0.2 mg/kg body wt/d of technical PCP for 99 d. Holstein-Friesen cow in early lactation, wt 400 kg. C(14) activity, 7635 dpm/mL. GC; Scintillation counting
CATTLE; DELIBERATE EXPOSURE; AUTOPSIES; WOOD PRESERVATIVES; LIVER; BLOOD SERUM; URINE; MILK; KIDNEYS; LUNGS; ADRENAL GLANDS; LYMPH NODES; MUSCLES; THYROID GLANDS; BILE; SPINAL FLUID; LYMPH; GALL BLADDER; MAMMARY GLANDS; OVARIES; PANCREAS; HEART; SPLEEN; ADIPOSE TISSUE; BRAIN; SPINAL CORD Kinzell, J.H.; McKenzie, R.M.; Olson, B.A.; Kirsch, D.G.; Shull, L.R. 1985 Journal of Agricultural and Food Chemistry 33:827-833				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11096 Adipose	a) 16 b) 4 c) 6	a) 21-48 ppb b) Not detected <10 ppb c) Not detected <10-26 ppb	a) Not given b) Not given c) Not given	a) Ontario b) Quebec c) Maritimes Samples, collected in 1980 at wholesale and retail outlets, originating from farms using wood shavings in poultry production. Pentachloraphenol contamination in 20/26 samples. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
11097 Liver	3	43-150 ppb	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in poultry production. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
WOOD PRESERVATIVES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; CHLORINE ORGANIC COMPOUNDS; SWINE; CHICKENS; TERRESTRIAL; CANADA; POLYCHLORINATED DIBENZODIOXINS; FOOD CONTAMINATION; MEAT Ryan, J.J.; Lizotte, R.; Sakuma, T.; Mori, B. 1985 Journal of Agricultural and Food Chemistry 33:1020-1026				

Clam, fingernail
SPHAERIIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11098 Body, whole		Not given	6 ppb Wet wt	0.35 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11099 Body		Not applicable	<3.0 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Crayfish
ORCONECTES PROPINQUUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11100 Body, whole		Not given	1 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 19.58 g tissue composite. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11101 Brain	1	Not applicable	27 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11102 Eggs	4	0-25 ng/g Wet wt	9.00+/-11.0 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11103 Kidney	1	Not applicable	39 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11104 Liver	1	Not applicable	41 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11105 Muscle	4	14-8571 ng/g Wet wt	2152+/-4279 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Ide
LEUCISCUS IDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11106 Muscle	11	Not given	2.72+/-16.7 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Leech
HIRUDINEA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11107 Body, whole		Not given	2671 ng/g (ppb) Wet wt	At least 3 species (DINA DUBIA, GLOSSIPHONIA COMPLANATA, HELOBDELLA STAGNALIS) from 1 site combined, 11/13/80. 2.4 g tissue composite accumulated 75,000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (D. dubia)
DINA DUBIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11108 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 149 ppb b) 35 ppb c) 934 ppb d) 1313 ppb e) 188 ppb f) 36 ppb Wet wt	a) Site CN-5, 7/9/81, 0.27 g b) CN-5, 11/4/81, 0.08 g c) CN-32, 5/5/81, 1.05 g d) CN-31, 6/2/81, 2.59 g e) CN-3, 9/30/81, 0.10 g f) CN-3, 11/4/81, 1.14 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Leech (E. punctata)
ERPOBDELLA PUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11109 Body, whole		a) Not given b) Not given c) Not given	a) 834 ppb b) 123 ppb c) 258 ppb Wet wt	a) Site CN-5, 6/2/81, 0.5 g b) CN-5, 7/9/81, 4.2 g c) CN-31, 6/2/81, 0.83 g Tissue composites. Sites CN-31 and -5 located 3.3 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Glossiphonia)
GLOSSIPHONIA COMPLANATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11110 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 18 ppb b) 1 ppb c) 22 ppb d) 167 ppb e) 19 ppb f) 5 ppb Wet wt	a) Site CN-5, 9/30/81, 0.21 g b) CN-5, 11/4/81, 1.22 g c) CN-32, 5/5/81, 4.92 g d) CN-31, 6/2/81, 1.56 g e) CN-3, 9/30/81, 0.21 g f) CN-3, 11/4/81, 0.34 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Haemopsis)
HAEMOPSIS GRANDIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11111 Body, whole		Not given	51 ppb Wet wt	Collected 7.8 km below pollutant source, 9/30/81. 2.12 g tissue composite. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Leech (Helobdella)
HELOBDELLA STAGNALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11112 Body, whole		a) Not given b) Not given c) Not given	a) 1275 ppb b) 72 ppb c) 39 ppb Wet wt	a) Site CN-31, 6/2/81, 0.45 g b) CN-3, 9/30/81, 0.19 g c) CN-3, 11/4/81, 0.45 g Tissue composites. Sites CN-3 and -31 located 1.7 and 3.3 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Limpet
FERRISSIA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11113 Body, whole		Not given	25 ppb Wet wt	0.8 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Midge
CHIRONOMUS RIPARIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11114 Body		a) 5-20 ppb b) 4-15 ppb c) 1-8 ppb Range of means	a) Not given b) Not given c) Not given	a) pH4, peak of 25 ppb at 24 hr b) pH6, peak at 48 hr c) pH9, peak at 48 hr Uptake levels at 1 hr and 48 hr in 4th instar larvae exposed to 50 uL [14-C]-PCP in acetone (0.5 ug/uL in 1-L flasks of water. Average of 3 replicates of each pH level. Uptake and toxicity vary significantly with pH.
PESTICIDE RESIDUES; PENTACHLOROPHENOL; MIDGES; WOOD PRESERVATIVES; DELIBERATE EXPOSURE; BODY; AQUATIC; WATER POLLUTION Fisher, S.W.; Wadleigh, R.W. 1986 Ecotoxicology and Environmental Safety 11:1-8				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Midge
CHIRONOMUS RIPARIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11115 Body, whole	10	Not given	9 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE *Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J.* 1985 Chemosphere 14(5):469-491				

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11116 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given k) Not given l) Not given	a) 2.8+/-0.3 ug/g b) 09.6+/-0.2 ug/g c) 21.5+/-0.5 ug/g d) 2.5+/-0.1 ug/g e) 12.3+/-0.5 ug/g f) 25.1+/-1.7 ug/g g) 5.8+/-0.1 ug/g h) 22.1+/-3.2 ug/g i) 43.8+/-8.9 ug/g j) 8.3+/-0.8 ug/g k) 35.1+/-4.6 ug/g l) 69.0+/-6.4 ug/g Wet wt	a) 3.1 ug/L water concentration, pH 6.5 b) 8.9 ug/L c) 16.5 ug/L d) 5.6 ug/L, pH 7.5 e) 27.6 ug/L f) 58.2 ug/L g) 12.7 ug/L h) 75.0 ug/L i) 161.0 ug/L j) 29.3 ug/L, pH 8.5 k) 125.0 ug/L l) 237.0 ug/L 32 d exposure. 8-10 samples/group. Toxicity decreased with increased test pH (LC50 values given). GC-EC
FISHES; BODY; AQUATIC; DELIBERATE EXPOSURE; JUVENILES; COMPARATIVE EVALUATIONS; PESTICIDES; WOOD PRESERVATIVES; PENTACHLOROPHENOL; BIOCONCENTRATION; BIOACCUMULATION; POISONING; WATER POLLUTION; PH Spehar, R.L.; Nelson, H.P.; Swanson, M.J.; Renoos, J.W. 1985 Environmental Toxicology and Chemistry 4:389-397				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11117 Body	a) 50 b) 30 c) 50 d) 50 e) 30 f) 50 g) 30 h) 31 i) 30	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 343 ug/kg b) 398 ug/kg c) 286 ug/kg d) 216 ug/kg e) 282 ug/kg f) 418 ug/kg g) 3473 ug/kg h) 2516 ug/kg i) 869 ug/kg Lipid wt	a) Pooled samples of soft tissue collected 1985 from Holbaek Fjord, a small marine inlet receiving municipal wastes and chemicals 1953-71. Site 5, shell lenth 35-45 mm, fat 7.0 g/kg wet wt b) Same site, shell length 46-55 mm, fat 12.6 g/kg c) Holbaek Fjord, site 7, shell length 35-45 mm, fat 10.2 g/kg d) Holbaek Fjord, Site 8, shell length 35-45 mm, fat 16.2 g/kg e) Same site, shell length 46-55 mm, fat 15.0 g/kg f) Oro, site across from mouth of Holbaek Fjord, shell length 35-45 mm, fat 9.8 g/kg g) Nykobing Bugt, inlet of the Isefjord, adjacent to Holbaek Fjord, shell length 53-63 mm, fat 8.8 g/kg h) Kattegat, open sea, near Gilleje, shell length 35-45 mm, fat 13.0 g/kg i) Same site, shell length 46-55 mm, fat 14.3 g/kg Included data on total organohalogens. Denmark, Zealand GC-EC
MUSSELS; ENVIRONMENTAL EXPOSURE; AQUATIC; DENMARK; WATER POLLUTION; BODY; COMPARATIVE EVALUATIONS; PENTACHLOROPHENOL; CHLORINE ORGANIC COMPOUNDS; SEWAGE Folke, J.; Birklund, J. 1986 Chemosphere 15(7):895-900				

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11118 Eggs	7	1-803 ng/g Wet wt	147+/-296 ng/g Wet wt	Collected 1971-1980. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11119 Body		a) Not applicable b) Not applicable	a) <0.20 mg/kg b) <0.10 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
11120 Muscle	a) 9 b) 16 c) 12 d) 10 e) 10 f) 15 g) 12	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 8.22+/-11.9 ug/kg b) 13.3+/-11.4 ug/kg c) 17.3+/-14.2 ug/kg d) 8.04+/-5.03 ug/kg e) 18.9+/-6.3 ug/kg f) 14.2+/-15.9 ug/kg g) 1.17+/-2.76 ug/kg Wet wt	a) Ristinselka, 1982 b) Uurainen, 1982 c) Tiirinselka, 1982 d) Vatia, 1978 e) Vatia, 1981 f) Vatia, 1982 g) Vatia, 1983 Lakesite and year of collection. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mentykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Roach
LEUCISCUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11121 Muscle	a) 14 b) 14 c) 16 d) 12 e) 10 f) 10	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 21.9+/-18.3 ug/kg b) 41.5+/-59.3 ug/kg c) 22.8+/-35.0 ug/kg d) 9.42+/-14.9 ug/kg e) 12.8+/-6.60 ug/kg f) 0.50+/-1.58 ug/kg Wet wt	a) Vatia, 1982 b) Ristinselka, 1982 c) Uurainen, 1982 d) Tiirinselka, 1982 e) Vatia, 1978 f) Vatia, 1983 Lakesite and year of collection. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11122 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 1.4+/-2.6 ppb b) 1.7+/-2.1 ppb c) 1.2+/-2.6 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Finland, Baltic Sea GC
11123 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 3.1+/-5.4 ppb b) 68.7+/-50.3 ppb c) 1.4+/-3.1 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES
Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11124 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 1.8+/-6.1 ng/g b) 3.0+/-3.0 ng/g c) 2.0+/-2.3 ng/g d) 4.2+/-4.0 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Tissue	Cases Exposure Route	Range	Mean	General Information
11125 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 1.8+/-6.1 ppb b) 3.0+/-3.0 ppb c) 2.0+/-2.3 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Finland, Baltic Sea GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11126 Adipose	1	a) Not applicable b) Not applicable c) Not applicable	a) 96 ug b) 41 ug c) 29 ug 1 g tissue	a) Pericardial fat b) Subcutaneous fat c) Omental fat [14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting

(next page)

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11127 Adrenal gland	1	Not applicable	48 ug/g tissue	[14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting
11128 Brain	1	Not applicable	8 ug/g tissue	[14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting
11129 Heart	1	Not applicable	10 ug/g tissue	[14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting
11130 Kidney	1	Not applicable	44 ug/g tissue	[14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting
11131 Liver	1	Not applicable	23 ug/g tissue	[14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting
11132 Lung	1	Not applicable	59 ug/g tissue	[14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting
11133 Lymph node	1	a) Not applicable b) Not applicable	a) 25 ug b) 21 ug /g tissue	a) Upper intestine lymph nodes b) Lower intestine lymph nodes [14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting
11134 Spleen	1	Not applicable	18 ug/g tissue	[14-C] activity of PCP or metabolites measured 36 hr after intraruminal injection of 50 uCi of [14-C]-labeled PCP with unlabeled PCP added for total dose of 10 mg/kg body wt (wt 33 kg). Scintillation counting

SHEEP; PESTICIDE RESIDUES; WOOD PRESERVATIVES; ADIPOSE TISSUE; LUNGS; ADRENAL GLANDS; KIDNEYS; LYMPH NODES; LIVER; SPLEEN; HEART; BRAIN; TERRESTRIAL; DELIBERATE EXPOSURE; PENTACHLOROPHENOL

Wilson, R.D.; Ziprin, R.L.; Clark, D.E.; Elissalde, M.H. 1982 Veterinary and Human Toxicology 24:12-15

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Snail
PHYSA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11135 Body, whole		a) Not given b) Not given	a) 9 pb b) 1 ppb Wet wt	a) 9/30/81, 5.37 g b) 11/4/81, 5.11 g. Tissue composites. Collected 7.4 km below pollutant source. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION
Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Sponge
SPONGILLA LAGUSTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11136 Body, whole	3	Not given	10 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11137 Muscle	45	0-59 ng/g Wet wt	5.89+/-11.66 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11138 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 11.23+/-15.41 ppb b) 1.21+/-2.15 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC
MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468				

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11139 Body		Not applicable	<3.0 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11140 Body		Not applicable	<0.40 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Swine
SUS *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
11141 Adipose	3	Not detected (<10-61 ppb	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in swine production. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
11142 Liver	5	70-340 ppb	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in poultry production. Pentachlorophenol contamination in all samples. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
WOOD PRESERVATIVES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; CHLORINE ORGANIC COMPOUNDS; SWINE; CHICKENS; TERRESTRIAL; CANADA; POLYCHLORINATED DIBENZODIOXINS; FOOD CONTAMINATION; MEAT Ryan, J.J.; Lizotte, R.; Sakuma, T.; Mori, B. 1985 Journal of Agricultural and Food Chemistry 33:1020-1026				

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11143 Eggs	11	Not given	9.9+/-9.1 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland GC
11144 Liver	11	Not given	12.8+/-9.9 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
11145 Muscle	11	Not given	4.2+/-4.4 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Phenol, pentachloro-
87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11146 Bile	a) 9 b) 4	a) Not given b) Not given	a) 0.32+/-0.12 ug/ml b) 45.7+/-13.0 ug/ml	a) Exposed 30 d to 2% v/v solution treated kraft pulp mill effluent, juveniles, (110-145 g), 3 sample pools b) 250-450-g fishes exposed 6 d to 7:10:4 mixture of phenols (CP-3:CP-4:PCC, total concentration 150 ug/L) Conjugated forms also measured. GC-EC
FISHES; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; AQUATIC; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; PHENOLS; PENTACHLOROPHENOL; WATER POLLUTION Oikari, A.; Anas, E. 1985 Bulletin of Environmental Contamination and Toxicology 35:802-809				

Tissue	Cases Exposure Route	Range	Mean	General Information
11147 Body	a) 5 b) 5 c) 5 d) 5 e) 5 f) 5	a) 1.3-2.2 ug/kg b) 1.2-2.7 ug/kg c) 4-10 ug/kg d) 4-9 ug/kg e) 33-100 ug/kg f) 72-178 ug/kg	a) 1.5+/-0.4 ug/kg b) 1.9+/-0.6 ug/kg c) 7+/-2 ug/kg d) 6+/-2 ug/kg e) 77+/-28 ug/kg f) 128+/-43 ug/kg	a) Unexposed (<10 ng/L) controls at 20 d b) At 115 d c) Exposed to 35 ng/L for 20 d d) For 115 d e) Exposed to 660 ng/L for 20 d f) For 115 d Does not include liver, gall bladder or intestinal contents. Values for intermediate times, 40, 65, 90 and 0 time for controls also given Body/organ wt data and total levels/fish included. Detection limit 0.8 ug/kg. Hatchery reared fish. GC
11148 Liver	a) 5 b) 5 c) 5 d) 5 e) 5 f) 5	a) 0.8-1.6 ug/kg b) 0.6-12.0 ug/kg c) 12-64 ug/kg d) 26-101 ug/kg e) 321-1770 ug/kg f) 1730-2860 ug/kg	a) 1.2+/-0.3 ug/kg b) 3.1+/-5 ug/kg c) 28+/-21 ug/kg d) 63+/-29 ug/kg e) 674+/-621 ug/kg f) 2204+/-549 ug/kg	a) Unexposed (<10 ng/L) controls at 20 d b) At 115 d c) Exposed to 35 ng/L for 20 d d) For 115 d e) Exposed to 660 ng/L for 20 d f) For 115 d Includes gall bladder. Values for intermediate times, 40, 65, 90 and 0 time for controls also given Body/organ wt data and total levels/fish included. Detection limit 0.8 ug/kg. Hatchery reared fish. GC
DELIBERATE EXPOSURE; FISHES; AQUATIC; BODY; LIVER; WATER POLLUTION; BIOACCUMULATION; FOOD CONTAMINATION; PENTACHLOROPHENOL; CHLORINE ORGANIC COMPOUNDS Niimi, A.J.; McFadden, C.A. 1982 Bulletin of Environmental Contamination and Toxicology 28:11-19				

Phenol, pentachloro-

87-86-5
C6-H-Cl5-O
MW 266.35, MP 190-191 C, BP 309-310 C (decomp), VP 40 mm Hg at 211.2 C

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11149 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.12 mg/kg b) <0.80 mg/kg c) <0.08 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Worm, aquatic
OLIGOCHAETA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11150 Body, whole		a) Not given b) Not given	a) 314 ppb b) 180 ppb Wet wt	a) 6/2/81, 0.53 g b) 11/4/81, 0.54 g Tissue composites. Collected 7.4 km below pollutant source. Levels exceeded only in leeches. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, tert-butyl-4-methoxy- (8 CI); Phenol, (1,1-dimethylethyl)-4-methoxy- (9 CI)

25013-16-5
C11-H16-O2
MW 180.27, MP 48-63 C

Dog
CANIS FAMILIARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11151 Adipose	a) 3 b) 3 c) 3 Ingestion Injection	a) 1408.3-1822.2 dpm/100 mg b) 1449.2-1946.5 dpm/100 mg c) 563.2-2538.2 dpm/100 mg	a) 1598.1 dpm/100 mg b) 1677.1 dpm/100 mg c) 1680.2 dpm/100 mg	a) 3% BHA b) 0.03% BHA c) Controls At autopsy. Fed respective diets 7 d, then all injected IP with 30 uCi/kg C(14)-labelled BHA and killed 7 days later after overnight fast. Scintillation counting

(next page)

Phenol, tert-butyl-4-methoxy- (8 CI); Phenol, (1,1-dimethylethyl)-4-methoxy- (9 CI)
25013-16-5
C11-H16-O2
MW 180.27, MP 48-63 C

Dog
CANIS FAMILIARIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11152 Blood	a) 3 b) 3 c) 3 Ingestion Injection	a) 6X10(E-3)-1X10(E-3) b) 8X10(E-3)-1X10(E-3) c) 11X10(E-3)-1X10(E-3) % of dose/ml	a) Not given b) Not given c) Not given	a) 30 min (peak) and 2 d post-injection, 3% BHA in diet b) 3 hr (peak) and 2 d post-injection, 0.03% BHA c) 20 min (peak) and 2 d post-injection, controls Fed respective diets 7 d, then injected IP with 30 uCi/kg C(14)-BHA. Scintillation counting
11153 Heart	a) 3 b) 3 c) 3 Ingestion Injection	a) 88.8-148.3 dpm/100 mg b) 19.6-225.6 dpm/100 mg c) 30.5-54.5 dpm/100 mg	a) 112.5 dpm/100 mg b) 96.0 dpm/100 mg c) 40.7 dpm/100 mg	a) 3% BHA b) 0.03% BHA c) Controls At autopsy. Fed respective diets 7 d, then all injected IP with 30 uCi/kg C(14)-labelled BHA and killed 7 days later after overnight fast. Scintillation counting
11154 Kidney	a) 3 b) 3 c) 3 Ingestion Injection	a) 55.0-151.7 dpm/100 mg b) 68.2-463.6 dpm/100 mg c) 112.9-224.8 dpm/100 mg	a) 100.2 dpm/100 mg b) 203.6 dpm/100 mg c) 154.8 dpm/100 mg	a) 3% BHA b) 0.03% BHA c) Controls At autopsy. Fed respective diets 7 d, then all injected IP with 30 uCi/kg C(14)-labelled BHA and killed 7 days later after overnight fast. Scintillation counting
11155 Liver	a) 3 b) 3 c) 3 Ingestion Injection	a) 567.2-797.2 dpm/100 mg b) 3510.7-5084.3 dpm/100 mg c) 6807.7-8657.6 dpm/100 mg	a) 649.3 dpm/100 mg b) 4217.9 dpm/100 mg c) 7451.4 dpm/100 mg	a) 3% BHA b) 0.03% BHA c) Controls At autopsy. Fed respective diets 7 d, then all injected IP with 30 uCi/kg C(14)-labelled BHA and killed 7 days later after overnight fast. Scintillation counting
11156 Stomach	a) 3 b) 3 c) 3 Ingestion Injection	a) 30.5-148.1 dpm/100 mg b) 30.2-362.8 dpm/100 mg c) 22.5-84.1 dpm/100 mg	a) 77.2 dpm/100 mg b) 35.8 dpm/100 mg c) 44.6 dpm/100 mg	a) 3% BHA b) 0.03% BHA c) Controls At autopsy. Fed respective diets 7 d, then all injected IP with 30 uCi/kg C(14)-labelled BHA and killed 7 days later after overnight fast. Radioactivity was almost evenly distributed in the 3 parts of stomach (cardia, corpus, pylorus). Means calculated from table. Scintillation counting
DOGS; DELIBERATE EXPOSURE; METABOLISM; LIVER; KIDNEYS; HEART; ADIPOSE TISSUE; BLOOD; TERRESTRIAL Takizawa, Y.; Matsuda, Y.; Yamasita, J. 1985 Toxicology Letters 27:27-34				

Phenol, tetrachloro-
25167-83-3
C6-H2-Cl4-O
Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11157 Body	a) 50 b) 30 c) 50 d) 50 e) 30 f) 50 g) 30 h) 31 i) 30	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 66 ug/kg b) 45 ug/kg c) 39 ug/kg d) 25 ug/kg e) 25 ug/kg f) 21 ug/kg g) 329 ug/kg h) 151 ug/kg i) 30 ug/kg Lipid wt	a) Pooled samples of soft tissue collected 1985 from Holbaek Fjord, a small marine inlet receiving municipal wastes and chemicals 1953-71. Site 5, shell lenth 35-45 mm, fat 7.0 g/kg wet wt b) Same site, shell length 46-55 mm, fat 12.6 g/kg c) Holbaek Fjord, Site 7, shell length 35-45 mm, fat 10.2 g/kg d) Holbaek Fjord, site 8, shell length 35-45 mm, fat 16.2 g/kg e) Same site, shell length 46-55 mm, fat 15.0 g/kg f) Oro, site across from mouth of Holbaek Fjord, shell length 35-45 mm, fat 9.8 g/kg g) Nykobing Bugt, inlet of the Isefjord, adjacent to Holbaek Fjord, shell length 53-63 mm, fat 8.8 g/kg h) Kattegat, open sea, near Gilleje, shell length 35-45 mm, fat 13.0 g/kg i) Same site, shell length 46-55 mm, fat 14.3 g/kg Included data on total organohalogens. Denmark, Zealand GC-EC
MUSSELS; ENVIRONMENTAL EXPOSURE; AQUATIC; DENMARK; WATER POLLUTION; BODY; COMPARATIVE EVALUATIONS; PENTACHLOROPHENOL; CHLORINE ORGANIC COMPOUNDS; SEWAGE Folke, J.; Birklund, J. 1986 Chemosphere 15(7):895-900				

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11158 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 13.1+/-35.0 ppb b) 22.7+/-26.4 ppb c) 0.3+/-0.7 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Finland, Baltic Sea GC
11159 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 2.2+/-3.4 ppb b) 196.7+/-278.4 ppb c) 0.0 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC

(next page)

Phenol, tetrachloro-
25167-83-3
C6-H2-Cl4-O

Salmon, Baltic
SALMO SALAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11160 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 5.0+/-13.6 ppb b) 17.3+/-23.4 ppb c) 2.3+/-2.8 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11161 Muscle	45	0-1 ng/g Wet wt	0.044+/-0.208 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Tissue	Cases Exposure Route	Range	Mean	General Information
11162 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.000 ppb b) 0.083+/-0.282 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC

MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES

Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468

Phenol, tetrachloro-
25167-83-3
C6-H2-Cl4-O
Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11163 Eggs	11	Not given	37.2+/-26.8 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland GC
11164 Liver	11	Not given	28.9+/-22.4 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
11165 Muscle	11	Not given	29.3+/-26.9 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Phenol, 2,3,4,5-tetrachloro-6-methoxy-
2539-17-5
C7-H4-Cl4-O2
Blackfly
SIMULIUM sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11166 Body, whole	3	Not given	5 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,3,4,5-tetrachloro-6-methoxy-
2539-17-5
C7-H4-Cl4-O2

Mussel
ANODONTA PISCINALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11167 Body, whole	7	Not given	4 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11168 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 7.9+/-16.7 ppb b) 3.0+/-2.6 ppb c) 0.1+/-0.3 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Finland, Baltic Sea GC
11169 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 17.0+/-29.1 ppb b) 2.0+/-3.5 ppb c) 1.6+/-3.1 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Phenol, 2,3,4,5-tetrachloro-6-methoxy-
2539-17-5
C7-H4-Cl4-O2

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11170 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 17.2+/-40.5 ng/g b) 7.0+/-6.2 ng/g c) 2.0+/-3.3 ng/g d) 17.8+/-59.1 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA *Site and variety collected in 1983.* Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Tissue	Cases Exposure Route	Range	Mean	General Information
11171 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 17.2+/-40.5 ppb b) 7.0+/-6.2 ppb c) 2.0+/-3.3 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Finland, Baltic Sea GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11172 Muscle	45	0-3 ng/g Wet wt	0.356+/-0.802 ng/g Wet wt	*Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983.* Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,3,4,5-tetrachloro-6-methoxy-
2539-17-5
C7-H4-Cl4-O2

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11173 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.000 ppb b) 0.667+/-1.01 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC
MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468				

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11174 Eggs	11	Not given	1.4+/-2.2 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland GC
11175 Liver	11	Not given	6.5+/-17.2 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
11176 Muscle	11	Not given	17.8+/-59.1 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11177 Body, whole		Not given	9 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 25.66 g tissue. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Burbot
LOTA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11178 *Muscle*	110	Not given	12.1+/-10.7 ug/kg Wet wt	Collected at Lake Vatia in 1983. *Finland* GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Clam, fingernail
SPHAERIIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11179 Body, whole		Not given	15 ppb Wet wt	0.35 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 *Chemosphere* 13:143-150				

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Crayfish
ORCONECTES PROPINQUUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11180 Body, whole		Not given	5 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 19.58 g tissue composite. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11181 Brain	1	Not applicable	40 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11182 Eggs	4	15-118 ng/g Wet wt	43.3+/-49.9 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11183 Kidney	1	Not applicable	55 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11184 Liver	1	Not applicable	73 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11185 Muscle	4	0-308 ng/g Wet wt	89.0+/-146 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Ide
LEUCISCUS IDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11186 Muscle	11	Not given	20.0+/-44.5 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Leech
HIRUDINEA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11187 Body, whole		Not given	1380 ng/g (ppb) Wet wt	At least 3 species (DINA DUBIA, GLOSSIPHONIA COMPLANATA, HELOBDELLA STAGNALIS) from 1 site combined, 11/13/80. 2.4 g tissue composite accumulated 69,000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (D. dubia)
DINA DUBIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11188 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 122 ppb b) 119 ppb c) 1086 ppb d) 720 ppb e) 508 ppb f) 105 ppb Wet wt	a) Site CN-5, 7/9/81, 0.27 g b) CN-5, 11/4/81, 0.08 g c) CN-32, 5/5/81, 1.05 g d) CN-31, 6/2/81, 2.59 g e) CN-3, 9/30/81, 0.10 g f) CN-3, 11/4/81, 1.14 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Leech (E. punctata)
ERPOBDELLA PUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11189 Body, whole		a) Not given b) Not given c) Not given	a) 583 ppb b) 113 ppb c) 151 ppb Wet wt	a) Site CN-5, 6/2/81, 0.5 g b) CN-5, 7/9/81, 4.2 g c) CN-31, 6/2/81, 0.83 g Tissue composites. Sites CN-31 and -5 located 3.3 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Glossiphonia)
GLOSSIPHONIA COMPLANATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11190 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 66 ppb b) 21 ppb c) 158 ppb d) 335 ppb e) 100 ppb f) 45 ppb Wet wt	a) Site CN-5, 9/30/81, 0.21 g b) CN-5, 11/4/81, 1.22 g c) CN-32, 5/5/81, 4.02 g d) CN-31, 6/2/81, 1.56 g e) CN-3, 9/30/81, 0.21 g f) CN-3, 11/4/81, 0.34 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Haemopsis)
HAEMOPSIS GRANDIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11191 Body, whole		Not given	96 ppb Wet wt	Collected 7.8 km below pollutant source, 9/30/81. 2.12 g tissue composite. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Leech (Helobdella)
HELOBDELLA STAGNALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11192 Body, whole		a) Not given b) Not given c) Not given	a) 290 ppb b) 140 ppb c) 79 ppb Wet wt	a) Site CN-31, 6/2/81, 0.45 g b) CN-3, 9/30/81, 0.19 g c) CN-3, 11/4/81, 0.45 g Tissue composites. Sites CN-3 and -31 located 1.7 and 3.3 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Limpet
FERRISSIA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11193 Body, whole		Not given	119 ppb Wet wt	0.8 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Midge
CHIRONOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11194 Body, whole	10	Not given	4 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11195 Eggs	7	0-17 ng/g Wet wt	8.43+/-6.80 ng/g Wet wt	Collected 1971-1980. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11196 Muscle	a) 9 b) 17 c) 12 d) 10 e) 6 f) 15 g) 12	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 15.1+/-15.5 ug/kg b) 20.8+/-11.2 ug/kg c) 32.5+/-36.7 ug/kg d) 19.0+/-12.4 ug/kg e) 2.75+/-1.42 ug/kg f) 34.0+/-29.8 ug/kg g) 2.50+/-6.22 ug/kg Wet wt	a) Ristinselka, 1982 b) Uurainen, 1982 c) Tiirinselka, 1982 d) Vatia, 1978 e) Vatia, 1981 f) Vatia, 1982 g) Vatia, 1983 Lakesite and year of collection. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Roach
LEUCISCUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11197 Muscle	a) 14 b) 16 c) 12 d) 10 e) 14 f) 10	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 26.8+/-10.4 ug/kg b) 32.9+/-36.1 ug/kg c) 17.0+/-22.8 ug/kg d) 11.5+/-8.26 ug/kg e) 51.3+/-52.2 ug/kg f) 3.50+/-11.1 ug/kg Wet wt	a) Ristinselka, 1982 b) Uurainen, 1982 c) Tiirinselka, 1982 d) Vatia, 1978 e) Vatia, 1982 f) Vatia, 1983 Lakesite and year of collection. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11198 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 5.0+/-13.6 ng/g b) 17.3+/-23.4 ng/g c) 2.3+/-2.8 ng/g d) 29.3+/-26.9 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Snail
PHYSA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11199 Body, whole		a) Not given b) Not given	a) 6 ppb b) 2 ppb Wet wt	a) 9/30/81, 5.37 g b) 11/4/81, 5.11 g. Tissue composites. Collected 7.4 km below pollutant source. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION

Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Phenol, 2,3,4,6-tetrachloro-
58-90-2
C6-H2-Cl4-O
MW 231.9, MP 69-70 C, 288 C (decomp), VP 1 mm Hg at 100.0 C

Sponge
SPONGILLA LAGUSTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11200 Body, whole	3	Not given	2 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11201 Bile	a) 9 b) 10 c) 4	a) Not given b) Not given c) Not given	a) 0.15+/-0.03 ug/ml b) 13.0 ug/ml c) 14.8+/-6.5 ug/ml	a) Exposed 30 d to 2% v/v solution treated kraft pulp mill effluent, juveniles, (110-145 g), 3 sample pools b) Alkaline hydrolysis, 120-145-g fishes exposed 10 d to 0.6% v/v solution, 1 sample pool c) 250-450-g fishes exposed 6 d to 7:10:4 mixture of phenols (CP-3:CP-4:PCC, total concentration 150 ug/L) Conjugated forms also measured. GC-EC
FISHES; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; AQUATIC; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; PHENOLS; PENTACHLOROPHENOL; WATER POLLUTION Oikari, A.; Anas, E. 1985 Bulletin of Environmental Contamination and Toxicology 35:802-809				

Worm, aquatic
OLIGOCHAETA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11202 Body, whole		a) Not given b) Not given	a) 37 ppb b) 124 ppb Wet wt	a) 6/2/81, 0.53 g b) 11/4/81, 0.54 g Tissue composites. Collected 7.4 km below pollutant source. Levels exceeded only in leeches. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11203 Body, whole		Not given	116 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 25.66 g tissue accumulated 400X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Blackfly
SIMULIUM sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11204 Body, whole	3	Not given	3 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE *Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J.* 1985 Chemosphere 14(5):469-491				

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11205 Kidney				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
11206 Liver				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11207 Eggs				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
11208 Liver				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Crayfish
ORCONECTES PROPINQUUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11209 Body, whole		Not given	5 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 19.58 g tissue composite. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11210 Brain	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11211 Eggs	4	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11212 Kidney	1	Not applicable	1017 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC

(next page)

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Eagle, white-tailed
HALIAEETUS ALBICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11213 Liver	1	Not applicable	372 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11214 Muscle	4	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 *Chemosphere 14(5):469-491*				

Goldfish
CARASSIUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11215 Body				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Leech
HIRUDINEA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11216 Body, whole		*Not given*	12,267 ng/g (ppb) Wet wt	At least 3 species (DINA DUBIA, GLOSSIPHONIA COMPLANATA, HELOBDELLA STAGNALIS) from 1 site combined, 11/13/80. 2.4 tissue composite accumulated 40,000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Leech (D. dubia)
DINA DUBIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11217 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 869 ppb b) 4817 ppb c) 10619 ppb d) 8196 ppb e) 4915 ppb f) 4299 ppb Wet wt	a) Site CN-5, 7/9/81, 0.27 g b) CN-5, 11/4/81, 0.08 g c) CN-32, 5/5/81, 1.05 g d) CN-31, 6/2/81, 2.59 g e) CN-3, 9/30/81, 0.10 g f) CN-3, 11/4/81, 1.14 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km respectively, below pollutant sources. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (E. punctata)
ERPOBDELLA PUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11218 Body, whole		a) Not given b) Not given c) Not given	a) 2456 ppb b) 932 ppb c) 1162 ppb Wet wt	a) Site CN-5, 6/2/81, 0.5 g b) CN-5, 7/9/81, 4.2 g c) CN-31, 6/2/81, 0.83 g Tissue composites. Sites CN-31 and -5 located 3.3 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Leech (Glossiphonia)
GLOSSIPHONIA COMPLANATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11219 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 325 ppb b) 226 ppb c) 806 ppb d) 705 ppb e) 902 ppb f) 903 ppb Wet wt	a) Site CN-5, 9/30/81, 0.21 g b) CN-5, 11/4/81, 1.22 g c) CN-32, 5/5/81, 4.92 g d) CN-31, 6/2/81, 1.56 g e) cN-3, 9/30/81, 0.21 g f) CN-3, 11/4/81, 0.34 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Haemopsis)
HAEMOPSIS GRANDIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11220 Body, whole		Not given	1288 ppb Wet wt	Collected 7.4 km below pollutant source, 9/30/81. 2.12 g tissue composite. Levels in leeches 10 to 100X those in other organisms, excepts aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Helobdella)
HELOBDELLA STAGNALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11221 Body, whole		a) Not given b) Not given c) Not given	a) 1947 ppb b) 1562 ppb c) 1829 ppb Wet wt	a) Site CN-31, 6/2/81, 0.45 g b) CN-3, 9/30/81, 0.19 g c) CN-3, 11/4/81, 0.45 g Tissue composites. Sites CN-3 and -31 located 1.7 and 3.3 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Limpet
FERRISSIA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11222 Body, whole		Not given	41 ppb Wet wt	0.8 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11223 Eggs	7	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Rat
RATTUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11224 Adipose				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
11225 Brain				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
11226 Kidney				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
11227 Liver				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11228 Kidney				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
11229 Liver				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Sponge
SPONGILLA LAGUSTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11230 Body, whole	3	Not given	195 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Trout
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11231 Body				Review. Consequences of contamination of aquatic environment by chlorophenols were evaluated. Bioconcentration in fish, tissue levels, and toxicity of the compounds were reviewed.
WATER POLLUTION; FISHES; REVIEW; BIOACCUMULATION; CHLORINE ORGANIC COMPOUNDS; SHEEP; CATTLE; CHICKENS; RATS; BODY; LIVER; EGGS Krijgsheld, K.R.; van der Gen, A. 1986 Chemosphere 15(7):825-860				

Phenol, 2,4-dichloro-
120-83-2
C6-H4-Cl2-O
MW 163.0, MP 45 C, BP 209-210 C

Worm, aquatic
OLIGOCHAETA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11232 Body, whole		Not given	588 ppb Wet wt	Collected 7.4 km below pollutant source, 6/2/81. 0.53 g tissue composite. Levels exceeded only in leeches. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11233 Body, whole		Not given	48 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 25.66 g tissue composite. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Bullfrog
RANA CATESBEIANA

Tissue	Cases Exposure Route	Range	Mean	General Information
11234 Body, whole		Not given	31 ng/g (ppb) Wet wt	Tadpole, 3.8 g, 11/13/80. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Burbot
LOTA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11235 Muscle	110	Not given	2.60+/-5.66 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Crayfish
ORCONECTES PROPINQUUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11236 Body, whole		Not given	3 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 19.58 g tissue composite. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11237 Brain	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11238 Eggs	4	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11239 Kidney	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11240 Liver	1	Not applicable	176 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC

(next page)

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Eagle, white-tailed
HALIAEETUS ALBICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11241 Muscle	4	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Leech
HIRUDINEA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11242 Body, whole		Not given	11,883 ng/g (ppb) Wet wt	At least 3 species (DINA DUBIA, GLOSSIPHONIA COMPLANATA, HELOBDELLA STAGNALIS) from 1 site combined, 11/13/80. 2.4 tissue composite accumulated 14,000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION

Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Leech (D. dubia)
DINA DUBIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11243 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1356 ppb b) 4917 ppb c) 15,308 ppb d) 8545 ppb e) 10,262 ppb f) 3297 ppb Wet wt	a) Site CN-5, 7/9/81, 0.27 g b) CN-5, 11/4/81, 0.08 g c) CN-32, 5/5/81, 1.05 g d) CN-31, 6/2/81, 2.59 g e) CN-3, 9/30/81, 0.10 g f) CN-3, 11/4/81, 1.14 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION

Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Leech (E. punctata)
ERPOBDELLA PUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11244 *Body, whole*		a) Not given b) Not given c) Not given	a) 4524 ppb b) 1046 ppb c) 1188 ppb Wet wt	a) Site CN-5, 6/2/81, 0.5 g b) CN-5, 7/9/81, 4.2 g c) CN-31, 6/2/81, 0.83 g Tissue composites. Sites CN-31 and -5 located 3.3 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Glossiphonia)
GLOSSIPHONIA COMPLANATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11245 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 710 ppb b) 640 ppb c) 2298 ppb d) 4140 ppb e) 1688 ppb f) 1781 ppb Wet wt	a) Site CN-5, 9/30/81, 0.21 g b) CN-5, 11/4/81, 1.22 g c) CN-32, 5/5/81, 4.92 g d) CN-31, 6/2/81, 1.56 g e) CN-3, 9/30/81, 0.21 g f) CN-3, 11/4/81, 0.34 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Haemopsis)
HAEMOPSIS GRANDIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11246 Body, whole		Not given	1110 ppb Wet wt	Collected 7.8 km below pollutant source, 9/30/81. 2.12 g tissue composite. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Leech (Helobdella)
HELOBDELLA STAGNALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11247 Body, whole		a) Not given b) Not given c) Not given	a) 4559 ppb b) 2461 ppb c) 2253 ppb Wet wt	a) Site CN-31, 6/2/81, 0.45 g b) CN-3, 9/30/81, 0.19 g c) CN-3, 11/4/81, 0.45 g Tissue composites. Sites CN-3 and -31 located 1.7 and 3.3 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Limpet
FERRISSIA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11248 Body, whole		Not given	5 ppb Wet wt	0.8 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Midge
CHIRONOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11249 Body, whole	10	Not given	2 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11250 Eggs	7	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11251 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 1.2+/-2.5 ppb b) 0.0 ppb c) 0.5+/-1.6 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Detection limit 0.5 ppb. Finland, Baltic Sea GC
11252 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 18.5+/-39.3 ppb b) 74.3+/-128.7 ppb c) 3.3+/-5.1 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Finland, Baltic Sea GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11253 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 0.2+/-0.6 ng/g b) 0.0+/-0.0 ng/g c) 3.5+/-5.3 ng/g d) 2.5+/-7.2 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Tissue	Cases Exposure Route	Range	Mean	General Information
11254 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 0.2+/-0.6 ppb b) 0.0 ppb c) 3.5+/-5.3 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Detection limit 0.5 ppb. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Snail
PHYSA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11255 Body, whole		a) Not given b) Not given	a) 14 ppb b) 36 ppb Wet wt	a) 9/30/81, 5.37 g b) 11/4/81, 5.11 g. Tissue composites. Collected 7.4 km below pollutant source. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION

Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11256 Muscle	45	0-2 ng/g Wet wt	0.067+/-0.33 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Tissue	Cases Exposure Route	Range	Mean	General Information
11257 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.000 ppb b) 0.125+/-0.448 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC

MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES

Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11258 Eggs	11	Not given	6.7+/-22.3 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland GC
11259 Liver	11	Not given	25.6+/-54.8 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
11260 Muscle	11	Not given	2.5+/-7.2 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Phenol, 2,4,5-trichloro-
95-95-4
C6-H3-Cl3-O
MW 197.5, BP 252 C, VP 1 mm Hg at 72 C

Worm, aquatic
OLIGOCHAETA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11261 Body, whole		a) Not given b) Not given	a) 561 ppb b) 894 ppb Wet wt	a) 6/2/81, 0.53 g b) 11/4/81, 0.54 g Tissue composites. Collected 7.4 km below pollutant source. Levels exceeded only in leeches. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Bass, rock
AMBLOPLITES RUPESTRIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11262 Body, whole		Not given	7 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 25.66 g tissue. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Blackfly
SIMULIUM sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11263 Body, whole	3	Not given	9 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Bullfrog
RANA CATESBEIANA

Tissue	Cases Exposure Route	Range	Mean	General Information
11264 Body, whole		Not given	10 ng/g (ppb) Wet wt	Tadpole, 3.8 g, 11/13/80. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION
Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Burbot
LOTA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11265 Muscle	10	Not given	9.20+/-9.25 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Crayfish
ORCONECTES PROPINQUUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11266 Body, whole		Not given	10 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 19.58 g tissue composite. Canada, Ontario, Canagagigue Creek GC-EC

BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION
Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11267 Brain	1	Not applicable	81 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC

(next page)

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Eagle, white-tailed
HALIAEETUS ALBICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11268 Eggs	4	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11269 Kidney	1	Not applicable	213 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11270 Liver	1	Not applicable	183 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11271 Muscle	4	0-179 ng/g Wet wt	63.8+/-79.5 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Leech
HIRUDINEA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11272 Body, whole		Not given	13588 ng/g (ppb) Wet wt	At least 3 species (DINA DUBIA, GLOSSIPHONIA COMPLANATA, HELOBDELLA STAGNALIS) from 1 site combined, 11/13/80. 2.4 g tissue composite accumulated 70,000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Leech (D. dubia)
DINA DUBIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11273 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 756 ppb b) 1529 ppb c) 6674 ppb d) 3620 ppb e) 2201 ppb f) 1225 ppb Wet wt	a) Site CN-5, 7/9/81, 0.27 g b) CN-5, 11/4/81, 0.08 g c) CN-32, 5/5/81, 1.05 g d) CN-31, 6/2/81, 2.59 g e) CN-3, 9/30/81, 0.10 g f) CN-3, 11/4/81, 1.14 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (E. punctata)
ERPOBDELLA PUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11274 Body, whole		a) Not given b) Not given c) Not given	a) 3715 ppb b) 1107 ppb c) 834 ppb Wet wt	a) Site CN-5, 6/2/81, 0.5 g b) CN-5, 7/9/81, 4.2 g c) CN-31, 6/2/81, 0.83 g Tissue composites. Sites CN-31 and -5 located 3.3 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Leech (Glossiphonia)
GLOSSIPHONIA COMPLANATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11275 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 430 ppb b) 221 ppb c) 645 ppb d) 1339 ppb e) 639 ppb f) 467 ppb Wet wt	a) Site CN-5, 9/30/81, 0.21 g b) CN-5, 11/4/81, 1.22 g c) CN-32, 5/5/81, 4.92 g d) CN-31, 6/2/81, 1.56 g e) CN-3, 9/30/81, 0.21 g f) CN-3, 11/4/81, 0.34 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Haemopsis)
HAEMOPSIS GRANDIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11276 Body, whole		Not given	485 ppb Wet wt	Collected 7.8 km below pollutant source, 9/30/81. 2.12 g tissue composite. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (Helobdella)
HELOBDELLA STAGNALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11277 Body, whole		a) Not given b) Not given c) Not given	a) 250 ppb b) 371 ppb c) 356 ppb Wet wt	a) Site CN-31, 6/2/81, 0.45 g b) CN-3, 9/30/81, 0.19 g c) CN-3, 11/4/81, 0.45 g Tissue composites. Sites CN-3 and -31 located 1.7 and 3.3 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Limpet
FERRISSIA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11278 Body, whole		Not given	119 ppb Wet wt	0.8 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Mussel
ANODONTA PISCINALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11279 Body, whole	7	Not given	6 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11280 Eggs	7	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11281 Muscle	a) 10 b) 12	a) Not given b) Not given	a) 13.6+/-19.1 ug/kg b) 0.58+/-2.02 ug/kg Wet wt	a) 1978 b) 1983 Year of collection, Lake Vatia. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Roach
LEUCISCUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11282 Muscle	a) 10 b) 10	a) Not given b) Not given	a) 55.9+/-53.4 ug/kg b) 2.30+/-4.90 ug/kg Wet wt	a) 1978 b) 1983 Year of collection, Lake Vatia. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 2,4,6-trichloro-
88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11283 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 5.4+/-9.2 ppb b) 2.3+/-3.2 ppb c) 1.1+/-1.5 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Finland, Baltic Sea GC
11284 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 5.9+/-10.3 ppb b) 2.3+/-4.0 ppb c) 10.3+/-31.5 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Tissue	Cases Exposure Route	Range	Mean	General Information
11285 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 1.9+/-4.5 ng/g b) 1.0+/-1.7 ng/g c) 1.7+/-3.5 ng/g d) 5.9+/-8.4 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Phenol, 2,4,6-trichloro-

88-06-2
C6-H3-Cl3-O
MW 197.5, MP 68 C, BP 244.5 C, VP 1 mm Hg at 76.5 C

Worm, aquatic
OLIGOCHAETA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11293 Body, whole		a) Not given b) Not given	a) 355 ppb b) 1128 ppb Wet wt	a) 6/2/81, 0.53 g b) 11/4/81, 0.54 g Tissue composites. Collected 7.4 km below pollutant source. Levels exceeded only in leeches. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,6-dichloro-

87-65-0
C6-H4-Cl2-O
MW 163.00, MP 68-69 C, BP 219-220 C at 740 mm Hg, VP 1 mm Hg at 59.5 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11294 Body, whole		Not given	258 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 25.66 g tissue accumulated 3000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Bullfrog
RANA CATESBEIANA

Tissue	Cases Exposure Route	Range	Mean	General Information
11295 Body, whole		Not given	84 ng/g (ppm) Wet wt	Tadpole (3.8 g) accumulated 1000X annual average water concentration, 11/13/80. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,6-dichloro-

87-65-0
C6-H4-Cl2-O
MW 163.00, MP 68-69 C, BP 219-220 C at 740 mm Hg, VP 1 mm Hg at 59.5 C

Crayfish
ORCONECTES PROPINQUUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11296 Body, whole		Not given	292 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 19.58 g tissue composite accumulated 3500X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech
HIRUDINEA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11297 Body, whole		Not given	5350 ng/g (ppb) Wet wt	At least 3 species (DINA DUBIA, GLOSSIPHONIA COMPLANATA, HELOBDELLA STAGNALIS) from 1 site combined, 11/13/80. 2.4 g tissue composite accumulated 65,000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (D. dubia)
DINA DUBIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11298 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 152 ppb b) 160 ppb c) 1519 ppb d) 958 ppb e) 249 ppb f) 166 ppb Wet wt	a) Site CN-5, 7/9/81, 0.27 g b) CN-5, 11/4/81, 0.08 g c) CN-32, 5/5/81, 1.05 g d) CN-31, 6/2/81, 2.59 g e) CN-3, 9/30/81, 0.10 g f) CN-3, 11/4/81, 1.14 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant sources. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,6-dichloro-
87-65-0
C6-H4-Cl2-O
MW 163.00, MP 68-69 C, BP 219-220 C at 740 mm Hg, VP 1 mm Hg at 59.5 C

Leech (E. punctata)
ERPOBDELLA PUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11299 Body, whole		a) Not given b) Not given c) Not given	a) 1515 ppb b) 968 ppb c) 790 ppb Wet wt	a) Site CN-5, 6/2/81, 0.5 g b) CN-5, 7/9/81, 4.2 g c) CN-31, 6/2/81, 0.83 g Tissue composites. Sites CN-31 and CN-5 located 3.3 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (G. complanata)
GLOSSIPHONIA COMPLANATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11300 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 50 ppb b) 50 ppb c) 173 ppb d) 36 ppb e) 7 ppb f) 153 ppb Wet wt	a) Site CN-5, 9/30/81, 0.21 g b) CN-5, 11/4/81, 1.22 g c) CN-32, 5/5/81, 4.92 g d) CN-31, 6/2/81, 1.56 g e) CN-3, 9/30/81, 0.21 g f) CN-3, 11/4/81, 0.34 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (H. grandis)
HAEMOPSIS GRANDIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11301 Body, whole		Not given	512 ppb Wet wt	Collected 7.4 km below pollutant source, 9/30/81. 2.12 g tissue composite. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 2,6-dichloro-

87-65-0
C6-H4-Cl2-O
MW 163.00, MP 68-69 C, BP 219-220 C at 740 mm Hg, VP 1 mm Hg at 59.5 C

Leech (H. stagnalis)
HELOBDELLA STAGNALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11302 Body, whole		Not given	2112 ppb Wet wt	Collected 3.3 km below pollutant source, 6/2/81. 0.45 g tissue composite. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Worm, aquatic
OLIGOCHAETA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11303 Body, whole		Not given	83 ppm Wet wt	Collected 7.4 km below pollutant source, 6/2/81. 0.53 g tissue composite. Levels exceeded only in leeches. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 3,4-dichloro-

95-77-2
C6-H4-Cl2-O
MW 163.00, MP 68 C, BP 253.5 C at 767 mm Hg

Clam, fingernail
SPHAERIIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11304 Body, whole		Not given	8 ppb Wet wt	0.35 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 3,4-dichloro-
95-77-2
C6-H4-Cl2-O
MW 163.00, MP 68 C, BP 253.5 C at 767 mm Hg

Crayfish
ORCONECTES PROPINQUUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11305 Body, whole		Not given	1 ng/g (ppb) Wet wt	1 sample site, 11/13/80. 19.58 g tissue composite. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech
HIRUDINEA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11306 Body, whole		Not given	6064 ng/g (ppb) Wet wt	At least 3 species (DINA DUBIA, GLOSSIPHONIA COMPLANATA, HELOBDELLA STAGNALIS) from 1 site combined, 11/13/80. 2.4 g tissue composite accumulated 45,000X annual average water concentration. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (D. dubia)
DINA DUBIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11307 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 267 ppb b) 530 ppb c) 3410 ppb d) 2488 ppb e) 1331 ppb f) 584 ppb Wet wt	a) Site CN-5, 7/9/81, 0.27 g b) CN-5, 11/4/81, 0.08 g c) CN-32, 5/5/81, 1.05 g d) CN-31, 6/2/81, 2.59 g e) CN-3, 9/30/81, 0.10 g f) CN-3, 11/4/81, 1.14 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 3,4-dichloro-
95-77-2
C6-H4-Cl2-O
MW 163.00, MP 68 C, BP 253.5 C at 767 mm Hg

Leech (E. punctata)
ERPOBDELLA PUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11308 Body, whole		a) Not given b) Not given c) Not given	a) 855 ppb b) 545 ppb c) 637 ppb Wet wt	a) Site CN-5, 6/2/81, 0.5 g b) CN-5, 7/9/81, 4.2 g c) CN-31, 6/2/81, 0.83 g Tissue composites. Sites CN-31 and -5 located 3.3 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (G. complanata)
GLOSSIPHONIA COMPLANATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11309 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 175 ppb b) 26 ppb c) 156 ppb d) 102 ppb e) 117 ppb f) 172 ppb Wet wt	a) Site CN-5, 9/30/81, 0.21 g b) CN-5, 11/4/81, 1.22 g c) CN-32, 5/5/81, 4.92 g d) CN-31, 6/2/81, 1.56 g e) CN-3, 9/30/81, 0.21 g f) CN-3, 11/4/81, 0.34 g Tissue composites. Sites CN-3, -31, -32 and -5 located 1.7, 3.3, 4.2 and 7.4 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Leech (H. grandis)
HAEMOPSIS GRANDIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11310 Body, whole		Not given	270 ppb Wet wt	Collected 7.8 km below pollutant source, 9/30/81. 2.12 g tissue composite. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 3,4-dichloro-
95-77-2
C6-H4-Cl2-O
MW 163.00, MP 68 C, BP 253.5 C at 767 mm Hg

Leech (H. stagnalis)
HELOBDELLA STAGNALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11311 Body, whole		a) Not given b) Not given c) Not given	a) 748 ppb b) 336 ppb c) 418 ppb Wet wt	a) Site CN-31, 6/2/81, 0.45 g b) CN-3, 9/30/81, 0.19 g c) CN-3, 11/4/81, 0.45 g *Tissue composites.* Sites CN-3 and -31 located 1.7 and 3.3 km, respectively, below pollutant source. Levels in leeches 10 to 100X those in other organisms, except aquatic worms. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Limpet
FERRISSIA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11312 Body, whole		Not given	10 ppb Wet wt	0.8 g tissue composite. Collected 7.4 km below pollutant source, 6/2/81. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Worm, aquatic
OLIGOCHAETA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11313 Body, whole		Not given	230 ppb Wet wt	Collected 7.4 km below pollutant source, 6/2/81. 0.53 g tissue composite. Levels exceeded only in leeches. Canada, Ontario, Canagagigue Creek GC-EC
BODY; AQUATIC; LEECHES; WORMS; ENVIRONMENTAL EXPOSURE; CANADA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; HALOGENS; PENTACHLOROPHENOL; PHENOLS; BIOACCUMULATION; BIOINDICATORS; BIOLOGICAL MONITORING; INDUSTRIAL POLLUTION; SEWAGE; WATER POLLUTION Metcalfe, J.L.; Fox, M.E.; Carey, J.H. 1984 Chemosphere 13:143-150				

Phenol, 3,4,5-trichloro-2,6-dimethoxy-
2539-26-6
C8-H7-Cl3-O3
Burbot
LOTA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11314 Muscle	110	Not given	2.30+/-5.74 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Midge
CHIRONOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11315 Body, whole	10	Not given	12 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K ; Humppi, T ; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola. T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11316 Muscle	12	Not given	0.42+/-1.44 ug/kg Wet wt	Collected in 1983, Lake Vatia. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Phenol, 3,4,5-trichloro-2,6-dimethoxy-
2539-26-6
C8-H7-Cl3-O3
Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11317 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 2.0+/-4.1 ppb b) 1.0+/-1.7 ppb c) 1.3+/-2.4 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Finland, Baltic Sea GC
11318 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 14.9+/-35.8 ppb b) 4.3+/-7.5 ppb c) 3.8+/-4.0 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Tissue	Cases Exposure Route	Range	Mean	General Information
11319 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 9.3+/-26.4 ng/g b) 1.3+/-2.3 ng/g c) 2.6+/-4.5 ng/g d) 2.9+/-5.6 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Phenol, 3,4,5-trichloro-2,6-dimethoxy-
2539-26-6
C8-H7-Cl3-O3

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11320 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 9.3+/-26.4 ppb b) 1.3+/-2.3 ppb c) 2.6+/-4.5 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Finland, Baltic Sea GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11321 Muscle	45	0-8 ng/g Wet wt	0.178+/-1.19 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Tissue	Cases Exposure Route	Range	Mean	General Information
11322 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.381+/-1.75 ppb b) 0.000 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC
MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468				

Phenol, 3,4,5-trichloro-2,6-dimethoxy-
2539-26-6
C8-H7-Cl3-O3
Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11323 Eggs	11	Not given	0.1+/-0.3 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland GC
11324 Liver	11	Not given	8.6+/-15.4 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
11325 Muscle	11	Not given	2.9+/-5.6 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Phenol, 4,5-dichloro-2-methoxy-
2460-49-3
C7-H6-Cl2-O2
Blackfly
SIMULIUM sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11326 Body, whole	3	Not given	23 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Phenol, 4,5-dichloro-2-methoxy-
2460-49-3
C7-H6-Cl2-O2
Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11327 Muscle	45	0-22 ng/g Wet wt	0.489+/-3.28 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Tissue	Cases Exposure Route	Range	Mean	General Information
11328 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 1.05+/-4.80 ppb b) 0.000 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 4 ppb. Finland GC-EC

MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES

Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468

Phosflex 31P (Ambiguous postings in CHEMLINE).
96300-97-9
Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11329 Body, whole	148	a) <0.2-<0.8 ug/g b) 2-4 ug/g c) 12-56 ug/g d) <2.0-<2.0 ug/g e) 8-23 ug/g f) 65-122 ug/g	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Unexposed control, component measured was triphenyl phosphate, 60 & 30 d b) As in a) except exposed to 5 ug/L Phosflex, 30 & 90 d c) As in a) except exposed to 14 ug/L, 30 & 90 d d) Unexposed control, component measured was isopropyl diphenyl phosphate, 30, 60 & 90 d e) As in d) except exposed to 3 ug/L, 30 & 90 d f) As in d) except exposed to 15 ug/L, 30 & 60 d Additional pre-, post-exposure data for different exposure levels/durations. Missouri, Columbia GC

DELIBERATE EXPOSURE; FISHES; BODY; AQUATIC; PHOSPHATE ESTERS; WATER POLLUTION; FIRE RETARDANTS

Cleveland, L.; Mayer, F.L.; Buckler, D.R.; Palawski, D.U. 1986 Environmental Toxicology and Chemistry 5:273-282

Phosphonodithioic acid, ethyl-, O-ethyl S-phenyl ester
944-22-9
C10-H15-O-P-S2
MW 246.2, BP 100 C at 0.3 mm Hg, VP 2.1X10(E-4) mm Hg at 25 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11330 Kidney	1 Ingestion	Not applicable	0.09 ug/g	Member of milking herd poisoned with contaminated corn containing 0.6 ug/g fonofos. Soil underneath storage area contained 0.7 ug/g and rumen contents 10 mg/g. Iowa Death from acute toxicosis. Herd showed various symptoms such as decreased milk production, anorexia, recumbency, excitement, salivation, muscle twitch, loose feces. Many died. Depressed cholinesterase activity. GC/MS
11331 Liver	1 Ingestion	Not applicable	0.6 ug/g	Member of milking herd poisoned with contaminated corn containing 0.6 ug/g fonofos. Soil underneath storage area contained 0.7 ug/g and rumen contents 10 mg/g. Iowa Death from acute toxicosis. Herd showed various symptoms such as decreased milk production, anorexia, recumbency, excitement, salivation, muscle twitch, loose feces. Many died. Depressed cholinesterase activity. GC/MS
11332 Milk, fat	Ingestion	Not applicable	0.09 ug/g	Tank milk, first sample from herd poisoned with contaminated corn containing 0.6 ug/g fonofos. Soil underneath storage area contained 0.7 ug/g and rumen contents 10 mg/g. None detected in second bulk sample or individual samples collected later. Iowa Death from acute toxicosis. Herd showed various symptoms such as decreased milk production, anorexia, recumbency, excitement, salivation, muscle twitch, loose feces. Many died. Depressed cholinesterase activity.

CATTLE; PESTICIDES; ENVIRONMENTAL EXPOSURE; ACCIDENTAL POISONING; MILK; KIDNEYS; LIVER; ORGANOPHOSPHATES; TERRESTRIAL; ANIMAL FEEDS; FOOD CONTAMINATION

Cook, W.O.; Carson, T.L. 1985 Veterinary and Human Toxicology 28(4):281-282

Phosphonothioic acid, ethyl-, O-ethyl O-(2,4,5-trichlorophenyl ester
327-98-0
C10-H12-Cl3-O2-P-S
MW 333.60, BP 108 C at 0.01 mm Hg, VP 2X10(E-5) mm Hg at 20 C

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
11333 Body				Review discusses vital role of earthworms in the environment and their usefulness as test organisms, and it summarizes chemical toxicity data from field and laboratory investigations.
EARTHWORMS; TERRESTRIAL; REVIEW; BIOACCUMULATION; PESTICIDE RESIDUES; INSECTICIDES; BIOINDICATORS; LEAD; ZINC; DDT; METABOLITES; METABOLISM; DELIBERATE EXPOSURE Roberts, B.L.; Dorough, H.W. 1985 Environmental Toxicology and Chemistry 4:307-323				

Phosphoramidothioic acid, acetyl-, O,S-dimethyl ester
30560-19-1
C4-H10-N-O3-P-S
MW 183.16, MP 72-80 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11334 Body	180	a) 0.33-0.79 ppm b) 0.053-1.21 ppm c) 12-187 ppb d) 13-238 ppb	a) Not given b) Not given c) Not given d) Not given	a) 0.88-23.1 ppm in water as Orthene 75-SP, 84 treated, 6 untreated controls b) 0.88-20 ppm as technical acephate (97%), 75 treated, 15 controls c) Methamidophos (metabolite) levels, same treatment and fish as (a) d) Methamidophos levels, same treatment and fish as (b) Range of means Uptake rapid, reaching equilibrium levels in 5-8 d. No significant bioconcentration (mean BCF=0.053?). Canada LC
BODY; FISHES; AQUATIC; DELIBERATE EXPOSURE; CANADA; INSECTICIDES; ORGANOPHOSPHATES; PESTICIDE RESIDUES; WATER POLLUTION Geen, G.H.; McKeown, B.A.; Oloffs, P.C. 1984 Journal of Environmental Science and Health B9:131-155				

Phosphoric acid tributyl ester
126-73-8
C12-H27-O4-P

Killifish
ORYZIAS LATIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
11335 Body		Not applicable	2.7 ppm	Constant maximum level reached within 1 d was maintained throughout 56 d exposure to 0.093-0.108 ppm in continuous flow system. Removal to clean water without TBP resulted in rapid elimination. Estimated from graph. GC
BIOACCUMULATION; FISHES; AQUATIC; DELIBERATE EXPOSURE; BODY; WATER POLLUTION Sasaki, K.; Suzuki, T.; Takeda, M.; Uchiyama, M. 1982 Bulletin of Environmental Contamination and Toxicology 28:752-759				

Phosphoric acid, dimethyl ester, ester with 2-chloro-N,N-diethyl-3-hydroxycrotonamide (8 CI); Phosphoric acid, 2-chloro-3-(diethylamino)-1-methyl-3-oxo-1-propenyl dimethyl ester (9 CI)
13171-21-6
C10-H19-Cl-N-O5-P
MW 299.70, BP 162 C at 1.5 mm Hg, also reported as 120 C at 0.001 mm Hg, VP 2.5X10(E-5) mm Hg at 20 C

Sparrow, house
PASSER DOMESTICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11336 Brain	a) 30 b) 30 Ingestion	a) Not applicable b) Not applicable	a) 12.176+/-0.34 ppm b) 8.975+/-0.08 ppm	a) 1 day b) 2 days Times after 60 ug in 0.5 ml acetone. Healthy birds, wt 12.24+/-1.64 g. India, Jaipur Tail and general tremors, stumbling gait, immobility, convulsions, regurgitation, ataxia, dyspnea, prostration, reduced activity and lethargy, feathers fluffed GC-EC
11337 Liver	a) 30 b) 30 Ingestion	a) Not applicable b) Not applicable	a) 3.468+/-0.07 ppm b) 3.210+/-0.05 ppm	a) 1 day b) 2 days Times after 60 ug in 0.5 ml acetone. Healthy birds, wt 12.24+/-1.64 g. India, Jaipur Tail and general tremors, stumbling gait, immobility, convulsions, regurgitation, ataxia, dyspnea, prostration, reduced activity and lethargy, feathers fluffed GC-EC
11338 Muscle	a) 30 b) 30 Ingestion	a) Not applicable b) Not applicable	a) 0.7008+/-0.12 ppm b) 3.5476+/-0.04 ppm	a) 1 day b) 2 days Times after 60 ug in 0.5 ml acetone. Healthy birds, wt 12.24+/-1.64 g. India, Jaipur Tail and general tremors, stumbling gait, immobility, convulsions, regurgitation, ataxia, dyspnea, prostration, reduced activity and lethargy, feathers fluffed GC-EC
DELIBERATE EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; INGESTION; AUTOPSIES; BRAIN; MUSCLES; LIVER; INSECTICIDES; ORGANOPHOSPHATES				
Saxena, P.N.; Bhatnagar, P. 1986 Bulletin of Environmental Contamination and Toxicology 36:47-51				

Phosphoric acid, diphenyl tolyl ester (8 CI); Phosphoric acid, methylphenyl diphenyl ester (9 CI)
26444-49-5
C19-H17-O4-P
Minnow
PHOXINUS PHOXINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11339 Body	a) 3 b) 3 c) 3 d) 3 e) 3 Ingestion	a) 0.005-0.018 ug/g b) 0.001-0.015 ug/g c) 0.005-0.014 ug/g d) 0.004-0.012 ug/g e) 0.001-0.033 ug/g Fresh wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable	a) 100 ug/g b) 300 ug/g c) 1,000 ug/g d) 3,000 ug/g e) 10,000 ug/g Nominal concentrations of triaryl phosphate (Pliabrac 521) in food which was given in 0.25 g portion/d for 120 d (=2 g/fish). Controls negative. Range of means from peaks 2 & 3, respectively. Sweden, Tvaren Bay Reproductive effects GC
DELIBERATE EXPOSURE; FISHES; AQUATIC; BODY; SWEDEN; BIOACCUMULATION; INDUSTRIAL CHEMICALS; WATER POLLUTION Bengtsson, B.-E.; Tarkpea, M.; Sletten, T.; Carlberg, G.E.; Kringstad, A.; Renberg, L. 1986 Environmental Toxicology and Chemistry 5:853-861				

Phosphoric acid, isodecyl diphenyl ester, mixt. with triphenyl phosphate
96300-95-7
C22-H31-O4-P.C18-H15-O4-P
Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11340 Body, whole	148	a) <0.2-1 ug/g b) 0.5-0.8 ug/g c) 16-28 ug/g d) <3.5-25 ug/g e) 11-21 ug/g f) 107-139 ug/g	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Unexposed control, component measured was triphenyl phosphate, 60 & 90 d b) As in a) except exposed to 1 ug/L Santicizer, 60 & 30 d c) As in a) except exposed to 21 ug/L, 30 & 90 d d) Unexposed control, component measured was isodecyl diphenyl phosphate, 90 & 30 d e) As in d) except exposed to 17 ug/L, 60 & 30 d f) As in d) except exposed to 315 ug/L, 30 & 90 d Additional pre-, post-exposure data for different exposure levels/durations. Missouri, Columbia GC
DELIBERATE EXPOSURE; FISHES; BODY; AQUATIC; PHOSPHATE ESTERS; WATER POLLUTION; FIRE RETARDANTS Cleveland, L.; Mayer, F.L.; Buckler, D.R.; Palawski, D.U. 1986 Environmental Toxicology and Chemistry 5:273-282				

Phosphoric acid, triphenyl ester
115-86-6
C18-H15-O4-P
MW 326.28, MP 49-50 C, BP 245 C at 11 mm Hg, VP 1 mm Hg at 193.5 C

Killifish
ORYZIAS LATIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
11341 Body		0.6-1.6 ppm	Not given	Level increased throughout 18 d exposure to 0.009-0.01 ppm in continuous flow system. Removal to clean water without TPP resulted in rapid elimination. Estimated from graph. High bioconcentration ratio (61-144) expected because of lipophilicity. GC
BIOACCUMULATION; FISHES; AQUATIC; DELIBERATE EXPOSURE; BODY; WATER POLLUTION Sasaki, K.; Suzuki, T.; Takeda, M.; Uchiyama, M. 1982 Bulletin of Environmental Contamination and Toxicology 28:752-759				

Minnow
PHOXINUS PHOXINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11342 Body	a) 3 b) 3 c) 3 d) 3 e) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.030 ug/g b) 0.020 ug/g c) 0.225 ug/g d) 0.12 ug/g e) 0.726 ug/g Fresh wt	a) 100 ug/g b) 300 ug/g c) 1,000 ug/g d) 3,000 ug/g e) 10,000 ug/g Nominal concentrations of triaryl phosphate (Pliabrac 521) in food which was given in 0.25 g portion/d for 120 d (=2 g/fish). Controls negative. Sweden, Tvaren Bay Reproductive effects GC
DELIBERATE EXPOSURE; FISHES; AQUATIC; BODY; SWEDEN; BIOACCUMULATION; INDUSTRIAL CHEMICALS; WATER POLLUTION Bengtsson, B.-E.; Tarkpea, M.; Sletten, T.; Carlberg, G.E.; Kringstad, A.; Renberg, L. 1986 Environmental Toxicology and Chemistry 5:853-861				

Phosphoric acid, tritolyl ester (8 CI); Phosphoric acid, tris(methylphenyl) ester (9 CI)
1330-78-5
C21-H21-O4-P
Minnow
PHOXINUS PHOXINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11343 Body	a) 3 b) 3 c) 3 d) 3 e) 3 Ingestion	a) 0.018-0.035 ug/g b) 0.035-0.05 ug/g c) 0.090-0.135 ug/g d) 0.44-0.44 ug/g e) 0.429-0.957 ug/g Fresh wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not appliable	a) 100 ug/g b) 300 ug/g c) 1,000 ug/g d) 3,000 ug/g e) 10,000 ug/g Nominal concentrations of triaryl phosphate (Pliabrac 521) in food which was given in 0.25 g portion/d for 120 d (=2 g/fish). Controls negative. Range of means from peaks 11 & 4+5, respectively. Sweden, Tvaren Bay Reproductive effects GC
DELIBERATE EXPOSURE; FISHES; AQUATIC; BODY; SWEDEN; BIOACCUMULATION; INDUSTRIAL CHEMICALS; WATER POLLUTION				
Bengtsson, B.-E.; Tarkpea, M.; Sletten, T.; Carlberg, G.E.; Kringstad, A.; Renberg, L. 1986 Environmental Toxicology and Chemistry 5:853-861				

Phosphorothioic acid, O-(4-((4-chlorophenyl)thio)phenyl) O-ethyl S-propyl ester
59010-86-5
C17-H20-Cl-O3-P-S2
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11344 Adipose	1 Ingestion	Not applicable	1.4 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11345 Blood	1 Ingestion	Not applicable	0.3 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11346 Brain	1 Ingestion	Not applicable	<0.05 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11347 Heart	1 Ingestion	Not applicable	0.1 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11348 Kidney	1 Ingestion	Not applicable	1.8 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11349 Liver	1 Ingestion	Not applicable	2.2 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting

(next page)

Phosphorothioic acid, O-(4-((4-chlorophenyl)thio)phenyl) O-ethyl S-propyl ester
59010-86-5
C17-H20-Cl-O3-P-S2
Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11350 Lung	1 Ingestion	Not applicable	0.5 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11351 Milk	1 Ingestion	Not applicable	0.3% % of dose	7 d after 10 mg/kg [C-14]-labeled dose. Cumulative amount excreted. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11352 Muscle	1 Ingestion	Not applicable	<0.05 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11353 Ovary	1 Ingestion	Not applicable	0.2 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall.
11354 Spleen	1 Ingestion	Not applicable	0.1 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11355 Tongue	1 Ingestion	Not applicable	0.2 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11356 Udder	1 Ingestion	Not applicable	0.2 ppm	7 d after 10 mg/kg [C-14]-labeled dose. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting
11357 Urine	1 Ingestion	Not applicable	66.9% % of dose	7 d after 10 mg/kg [C-14]-labeled dose. Cumulative amount excreted. Lactating 433 kg Jersey cow in a metabolism stall. TLC; Scintillation counting

LIVER; KIDNEYS; ADIPOSE TISSUE; MILK; LUNGS; BLOOD; BRAIN; HEART; MUSCLES; OVARIES; SPLEEN; TONGUE; UDDER; URINE; TERRESTRIAL; CATTLE; DELIBERATE EXPOSURE; ADULTS; INSECTICIDES; BIOLOGICAL MONITORING; METABOLISM; METABOLITES

Ivie, G.W.; Bull, D.L.; Beier, R.C. 1985 Bulletin of Environmental Contamination and Toxicology 34:309-316

Phosphorothioic acid, O,O-diethyl O-(p-(methylsulfinyl)phenyl) ester (8 CI); Phosphorothioic acid, O,O-diethyl O-(4-(methylsulfinyl)phenyl) ester (9 CI)
115-90-2
C11-H17-O4-P-S2
MW 308.35, BP 138-141 C at 0.01 mm Hg

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
11358 Body				Review discusses vital role of earthworms in the environment and their usefulness as test organisms, and it summarizes chemical toxicity data from field and laboratory investigations.
EARTHWORMS; TERRESTRIAL; REVIEW; BIOACCUMULATION; PESTICIDE RESIDUES; INSECTICIDES; BIOINDICATORS; LEAD; ZINC; DDT; METABOLITES; METABOLISM; DELIBERATE EXPOSURE Roberts, B.L.; Dorough, H.W. 1985 Environmental Toxicology and Chemistry 4:307-323				

Phosphorothioic acid, O,O-diethyl O-(3,5,6-trichloro-2-pyridyl) ester (8 CI); Phosphorothioic acid, O,O-diethyl O-(3,5,6-trichloro-2-pyridinyl) ester (9 CI)
2921-88-2
C9-H11-Cl3-N-O3-P-S
MW 350.57, MP 41-42 C

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
11359 Body				Review discusses vital role of earthworms in the environment and their usefulness as test organisms, and it summarizes chemical toxicity data from field and laboratory investigations.
EARTHWORMS; TERRESTRIAL; REVIEW; BIOACCUMULATION; PESTICIDE RESIDUES; INSECTICIDES; BIOINDICATORS; LEAD; ZINC; DDT; METABOLITES; METABOLISM; DELIBERATE EXPOSURE Roberts, B.L.; Dorough, H.W. 1985 Environmental Toxicology and Chemistry 4:307-323				

Toadfish
OPSANUS BETA

Tissue	Cases Exposure Route	Range	Mean	General Information
11360 Body, whole	224	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.017 ug/g b) Not detectable c) 12.0 ug/g d) 9.9 ug/g e) 45.0 ug/g f) 175.0 ug/g g) 770.0 ug/g	a) Control, seawater with no detectable level b) Solvent control with no detectable level c) Level of 18+/-5.5 ug/L d) 21+/-4.0 ug/L e) 50.0+/-9.9 ug/L f) 93.0+/-11.0 ug/L g) 150+/-24.0 ug/L Detection limit, water <0.015 ug/L, in tissue <0.010 ug/g. Results from one of 2 toxicity tests in which embryos, sac fry, juveniles were exposed to technical grade for 49 days. Overall survival was 95.3% Survival reduced at 150 ug/L level. Decreased wt. 96-hr LC50 was 520 ug/L.
DELIBERATE EXPOSURE; FISHES; PESTICIDES; PESTICIDE RESIDUES; AQUATIC; BODY; WATER POLLUTION; JUVENILES; EMBRYOS; CHLORINE ORGANIC COMPOUNDS Hansen, D.J.; Goodman, L.R.; Cripe, G.M.; Macauley, S.F. 1986 Ecotoxicology and Environmental Safety 11:15-22				

Phosphorothioic acid, O,O-diethyl, O-(2-isopropyl-6-methyl-4-pyrimidinyl ester (8 CI); Phosphorothioic acid, O,O-diethyl O-(6-methyl-2-(1-methylethyl)-4-pyrimidinyl) ester (9 CI)

333-41-5

C12-H21-N2-O3-P-S

MW 304.36, MP decomp above 120 C, BP 83-84 C at 0.002 mm Hg, VP 4.1X10(E-4) at 20 C, 1.1X10(E-3) at 40 C

Carp

CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11361 Body		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 1.0 ppm b) 2.4 ppm c) 2.1 ppm d) 2.1 ppm e) 0.006 ppm	a) After 1 d exposure to 0.018 ppm b) 3 d c) 7 d d) 14 d e) After 7 d recovery in clean water following 14 d exposure Levels of metabolite M-2 after 1, 3, 7, 14 d were 0.019, 0.054, 0.045, 0.033 ppm and metabolite M-6 were 0.22, 0.25, 0.39, 0.21 ppm Japan, Saitama Prefecture GLC
DELIBERATE EXPOSURE; FISHES; SHRIMP; CRUSTACEANS; AQUATIC; WATER POLLUTION; BODY; PESTICIDES; PESTICIDE RESIDUES; METABOLITES; BIOCONCENTRATION; JAPAN Seguchi, K.; Asaka, S. 1981 Bulletin of Environmental Contamination and Toxicology 27:244-249				

Loach

MISGURNUS ANGUILLICAUDATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11362 Body		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.18 ppm b) 0.36 ppm c) 0.36 ppm d) 0.42 ppm e) 0.007 ppm	a) After 1 d exposure to 0.016 ppm b) After 3 d exposure to 0.014 ppm c) After 7 d exposure to 0.015 ppm d) After 14 d exposure to 0.014 ppm e) After 7 d recovery in clean water following 14 d exposure Levels of metabolite M-6 after 1, 3, 7, 14 d were 0.17, 0.12, 0.20, 0.24 ppm. GLC
DELIBERATE EXPOSURE; FISHES; SHRIMP; CRUSTACEANS; AQUATIC; WATER POLLUTION; BODY; PESTICIDES; PESTICIDE RESIDUES; METABOLITES; BIOCONCENTRATION; JAPAN Seguchi, K.; Asaka, S. 1981 Bulletin of Environmental Contamination and Toxicology 27:244-249				

Phosphorothioic acid, O,O-diethyl, O-(2-isopropyl-6-methyl-4-pyrimidinyl ester (8 CI); Phosphorothioic acid, O,O-diethyl O-(6-methyl-2-(1-methylethyl)-4-pyrimidinyl) ester (9 CI)
333-41-5
C12-H21-N2-O3-P-S
MW 304.36, MP decomp above 120 C, BP 83-84 C at 0.002 mm Hg, VP 4.1X10(E-4) at 20 C, 1.1X10(E-3) at 40 C

Shrimp
PENAEOPSIS JOYNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11363 Body		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.050 ppm b) 0.066 ppm c) 0.053 ppm d) 0.054 ppm e) 0.004 ppm	a) After 1 d exposure to 0.016 ppm b) After 3 d exposure to 0.021 ppm c) After 7 d exposure to 0.020 ppm d) After 14 d exposure to 0.021 ppm e) After 7 d recovery in clean water following 14 d exposure Levels of metabolite M-6 after 1, 3, 7, 14 d were 0.18, 0.14, 0.21, 0.20 ppm. GLC
DELIBERATE EXPOSURE; FISHES; SHRIMP; CRUSTACEANS; AQUATIC; WATER POLLUTION; BODY; PESTICIDES; PESTICIDE RESIDUES; METABOLITES; BIOCONCENTRATION; JAPAN Seguchi, K.; Asaka, S. 1981 Bulletin of Environmental Contamination and Toxicology 27:244-249				

Slug
AGRIOLIMAX RETICULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11364 Body				Review discusses vital role of earthworms in the environment and their usefulness as test organisms, and it summarizes chemical toxicity data from field and laboratory investigations.
EARTHWORMS; TERRESTRIAL; REVIEW; BIOACCUMULATION; PESTICIDE RESIDUES; INSECTICIDES; BIOINDICATORS; LEAD; ZINC; DDT; METABOLITES; METABOLISM; DELIBERATE EXPOSURE Roberts, B.L.; Dorough, H.W. 1985 Environmental Toxicology and Chemistry 4:307-323				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11365 Body		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.80 ppm b) 1.2 ppm c) 0.81 ppm d) 0.82 ppm e) 0.008 ppm	a) After 1 d exposure to 0.014 ppm b) After 3 d exposure to 0.012 ppm c) After 7 d exposure to 0.012 ppm d) After 14 d exposure to 0.015 ppm e) After 7 d recovery in clean water following 14 d exposure Levels of metabolite M-2 after 1, 3, 7, 14 d were 0.025, 0.026, 0.023, 0.019 ppm and metabolite M-6 were 0.15, 0.28, 0.33, 0.39 ppm. GLC
DELIBERATE EXPOSURE; FISHES; SHRIMP; CRUSTACEANS; AQUATIC; WATER POLLUTION; BODY; PESTICIDES; PESTICIDE RESIDUES; METABOLITES; BIOCONCENTRATION; JAPAN Seguchi, K.; Asaka, S. 1981 Bulletin of Environmental Contamination and Toxicology 27:244-249				

Phosphorus
7723-14-0
P
AtW 30.97376, MP 44.1 C, BP 280 C, VP 10 mm Hg at 127 C
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11366 Blood, serum	607	<60->240 ppm	139+/-44 ppm	Mineral profile, 1981-1983. Several breeds, age 0->6 yr. ICP-AES
BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565				

Tissue	Cases Exposure Route	Range	Mean	General Information
11367 Brain	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 3,560 ug/g b) 3,620 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Tissue	Cases Exposure Route	Range	Mean	General Information
11368 Kidney	90	1.6X10(E+3)->3.6X10(E+3) ppm	2,460+/-405 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES
BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565				

Tissue	Cases Exposure Route	Range	Mean	General Information
11369 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 2,500 ug/g b) 2,410 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Phosphorus
7723-14-0
P
AtW 30.97376, MP 44.1 C, BP 280 C, VP 10 mm Hg at 127 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11370 Liver	229	>2.0X10(E+3)->4.4X10(E+3) ppm	3,400+/-661 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES
BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; *ALUMINUM; ARSENIC; CHROMIUM;* LEAD; BIOCONCENTRATION Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565				

Tissue	Cases Exposure Route	Range	Mean	General Information
11371 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 3,580 ug/g b) 3,680 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation
11372 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1,640 ug/g b) 1,740 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation
11373 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 2,960 ug/g b) 2,860 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Phosphorus
7723-14-0
P
AtW 30.97376, MP 44.1 C, BP 280 C, VP 10 mm Hg at 127 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11374 Blood, serum	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 6+/-0.4 mg/dl b) 6+/-0.4 mg/dl c) 6+/-0.4 mg/dl d) 6+/-0.4 mg/dl e) 7+/-0.4 mg/dl f) 5+/-0.4 mg/dl g) 6+/-1 mg/dl h) 7+/-1 mg/dl i) 6+/-1 mg/dl S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (35% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS g) At slaughter, 40 d after weaning, basal diet h) With CSM i) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. MAS
11375 Blood, whole	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 211+/-11 ug/ml b) 220+/-11 ug/ml c) 239+/-11 ug/ml d) 265+/-7 ug/ml e) 247+/-7 ug/ml f) 234+/-7 ug/ml g) 222+/-9 ug/ml h) 205+/-9 ug/ml i) 207+/-9 ug/ml S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (3.5% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS g) At slaughter, 40 d after weaning, basal diet h) With CSM i) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. MAS
11376 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 147+/-9 mg/g b) 174+/-9 mg/g c) 160+/-9 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. MAS
11377 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 19+/-0.5 mg/g b) 18+/-0.5 mg/g c) 18+/-0.5 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

(next page)

Phosphorus
7723-14-0
P
AtW 30.97376, MP 44.1 C, BP 280 C, VP 10 mm Hg at 127 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11378 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 21+/-0.8 mg/g b) 22+/-0.8 mg/g c) 20+/-0.8 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. MAS
11379 Milk	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1,751+/-116 ug/ml b) 1,732+/-116 ug/ml c) 1,620+/-116 ug/ml d) 1,608+/-77 ug/ml e) 1,495+/-77 f) 1,503+/-77 ug/ml S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (3.5% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. MAS
11380 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 43+/-4.8 mg/g b) 35+/-4.8 mg/g c) 35+/-4.8 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. MAS
11381 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 18+/-0.8 mg/g b) 15+/-0.8 mg/g c) 16+/-0.8 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. MAS

SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE

Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424

Phthalic acid (8 CI); 1,2-Benzenedicarboxylic acid (9 CI)

88-99-3
C8-H6-O4
MW 166.13, MP 191 C (sealed tube), also reported as about 230 C, BP 552 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11382 Body		a) Not given b) Not given	a) 630 ppb b) 330 ppb Wet wt	a) Chef Menteur Pass at Lake Pontchartrain b) The Rigolets at Lake Pontchartrain. Composite samples, collected 5/80-6/80. Concentration expressed as d10-anthracene equivalents. Adjusted for percent recovery. Louisiana, Lake Pontchartrain GC/MS

ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS

McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569

Phthalic acid, bis(2-ethylhexyl) ester (8 CI); 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester (9 CI)

117-81-7
C24-H38-O4
MW 390.54

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11383 Body		Not applicable	0.60 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11384 Body		Not applicable	<0.04 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Phthalic acid, bis(2-ethylhexyl) ester (8 CI); 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester (9 CI)
117-81-7
C24-H38-O4
MW 390.54
Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11385 Body		Not applicable	<0.80 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11386 Body		Not applicable	<0.04 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11387 Body		Not applicable	0.24 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Phthalic acid, bis(2-ethylhexyl) ester (8 CI); 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester (9 CI)
117-81-7
C24-H38-O4
MW 390.54
Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11388 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) 0.25 mg/kg b) <0.04 mg/kg c) 0.36 mg/kg d) 32.10 mg/kg e) 4.30 mg/kg f) 1.80 mg/kg g) 0.50 mg/kg h) 0.05 mg/kg i) 1.5 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11389 Body		a) Not given b) Not given	a) 240 ppb b) 200 ppb Wet wt	a) Chef Menteur Pass at Lake Pontchartrain b) The Rigolets at Lake Pontchartrain. Composite samples, collected 5/80-6/80. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Phthalic acid, bis(2-ethylhexyl) ester (8 CI); 1,2-Bensenedicarboxylic acid, bis(2-ethylhexyl) ester (9 CI)
117-81-7
C24-H38-O4
MW 390.54

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11390 Body		Not applicable	<1.0 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11391 Body		Not given	210 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11392 Body		a) Not applicable b) Not applicable	a) 0.76 mg/kg b) 2.00 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, bis(2-ethylhexyl) ester (8 CI); 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester (9 CI)
117-81-7
C24-H38-O4
MW 390.54

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11393 Body		Not applicable	<1.0 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11394 Body		Not applicable	<0.20 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11395 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.30 mg/kg b) 3.4 mg/kg c) 0.12 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, dibutyl ester (8 CI); 1,2-Benzenedicarboxylic acid, dibutyl ester (9 CI)
84-74-2
C16-H22-O4
MW 278.34, MP -35 C, BP 340 C, VP 14 mm Hg at 200 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11396 Body		Not applicable	<0.02 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11397 Body		Not applicable	2.2 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11398 Body		Not applicable	35.0 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, dibutyl ester (8 CI); 1,2-Benzenedicarboxylic acid, dibutyl ester (9 CI)
84-74-2
C16-H22-O4
MW 278.34, MP -35 C, BP 340 C, VP 14 mm Hg at 200 C

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11399 Body		Not applicable	6.90 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11400 Body		Not applicable	4.36 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Phthalic acid, dibutyl ester (8 CI); 1,2-Benzenedicarboxylic acid, dibutyl ester (9 CI)
84-74-2
C16-H22-O4
MW 278.34, MP -35 C, BP 340 C, VP 14 mm Hg at 200 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11401 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) 1.08 mg/kg b) <0.02 mg/kg c) <0.02 mg/kg d) 15.64 mg/kg e) <0.04 mg/kg f) <0.02 mg/kg g) <0.02 mg/kg h) <0.16 mg/kg i) <0.02 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries *GC/MS*
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL *MONITORING*; *OHIO*; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11402 Body		*Not applicable*	28.60 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, dibutyl ester (8 CI); 1,2-Benzenedicarboxylic acid, dibutyl ester (9 CI)
84-74-2
C16-H22-O4
MW 278.34, MP -35 C, BP 340 C, VP 14 mm Hg at 200 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11403 Body		Not given	570 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11404 Body		a) Not applicable b) Not applicable	a) <0.02 mg/kg b) <0.02 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11405 Body		Not applicable	19.80 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, dibutyl ester (8 CI); 1,2-Benzenedicarboxylic acid, dibutyl ester (9 CI)
84-74-2
C16-H22-O4
MW 278.34, MP -35 C, BP 340 C, VP 14 mm Hg at 200 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11406 Body		Not applicable	<0.10 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11407 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.02 mg/kg b) <0.10 mg/kg c) <0.02 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, diethyl ester (8 CI); 1,2-Benzenedicarboxylic acid, diethyl ester (9 CI)
84-66-2
C12-H14-O4
MW 222.23, MP -40.5 C, BP 295 C, VP 14 mm Hg at 163 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11408 Body		Not applicable	<0.02 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11409 Body		Not applicable	<0.08 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11410 Body		Not applicable	<0.02 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, diethyl ester (8 CI); 1,2-Benzenedicarboxylic acid, diethyl ester (9 CI)
84-66-2
C12-H14-O4
MW 222.23, MP -40.5 C, BP 295 C, VP 14 mm Hg at 163 C

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11411 Body		Not applicable	<0.08 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11412 Body		Not applicable	<0.08 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, diethyl ester (8 CI); 1,2-Benzenedicarboxylic acid, diethyl ester (9 CI)
84-66-2
C12-H14-O4
MW 222.23, MP -40.5 C, BP 295 C, VP 14 mm Hg at 163 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11413 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) <0.04 mg/kg b) <0.04 mg/kg c) <0.04 mg/kg d) <0.20 mg/kg e) <0.08 mg/kg f) <0.04 mg/kg g) <0.02 mg/kg h) <0.24 mg/kg i) <0.02 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11414 Body		a) Not given b) Not given	a) 450 ppb b) 340 ppb Wet wt	a) Chef Menteur Pass at Lake Pontchartrain b) The Rigolets at Lake Pontchartrain. Composite samples, collected 5/80-6/80. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Phthalic acid, diethyl ester (8 CI); 1,2-Bensenedicarboxylic acid, diethyl ester (9 CI)
84-66-2
C12-H14-O4
MW 222.23, MP -40.5 C, BP 295 C, VP 14 mm Hg at 163 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11415 Body		Not applicable	<0.30 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11416 Body		Not given	1100 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS

ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS

McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11417 Body		a) Not applicable b) Not applicable	a) <0.04 mg/kg b) 0.12 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Phthalic acid, diethyl ester (8 CI); 1,2-Bensenedicarboxylic acid, diethyl ester (9 CI)
84-66-2
C12-H14-O4
MW 222.23, MP -40.5 C, BP 295 C, VP 14 mm Hg at 163 C

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11418 Body		Not applicable	<0.30 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11419 Body		Not applicable	<0.20 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC/MS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11420 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.04 mg/kg b) <0.30 mg/kg c) <0.04 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Phthalic acid, dimethyl ester (8 CI); 1,2-Benzenedicarboxylic acid, dimethyl ester (9 CI)
131-11-3
C10-H10-O4
MW 194.18, MP 0-2 C, BP 283.7 C, VP 1 mm Hg at 100.3 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11421 Body		Not given	44 ppb Wet wt	Composite sample, collected 5/80-6/80, The Rigolets at Lake Pontchartrain. Concentrations expressed as d10-anthracene equivalents. Adjusted for percent recovery. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11422 Body		Not given	8.4 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Picolinic acid, 4-amino-3,5,6-trichloro- (8 CI); 2-Pyridinecarboxylic acid, 4-amino-3,5,6-trichloro- (9 CI)
1918-02-1
C6-H3-Cl3-N2-O2
MW 241.46, MP 218-219 C, VP 6.16X10(E-7) mm Hg at 35 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11423 Body	a) 4 b) 4 c) 4 d) 4 e) 4	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.14 ug/g b) 0.10 ug/g c) 0.12 ug/g d) 0.11 ug/g e) 0.14 ug/g Wet wt	a) 1 hr after adding C(14)-Picloram to give a level of 0.93 ug/mL and activity of 1118 DPM/mL b) 6 hr after treatment c) 12 hr after treatment d) 24 hr after treatment e) 96 hr after treatment 3 samples at each time a)-d), 2 samples for e). Bioconcentration factors were 0.10-0.15, activity DPM/g fish/activity DPM/mL water. GC-EC
MEASUREMENT METHODS; DELIBERATE EXPOSURE; FISHES; HERBICIDES; BODY; AQUATIC; PESTICIDES Rieger, A.W.; Muir, D.C.G.; Hendzel, M.R. 1985 Journal of the Association of Official Analytical Chemists 68(1):59-61				

Plastics (No postings in CHEMLINE).

Petrel, Atlantic
PTERODROMA INCERTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11424 Gizzard	13 Ingestion	0-1 particles	0.1 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION				
Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Petrel, grey-backed storm
GARRODIA NEREIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11425 Gizzard	11 Ingestion	0-1 particles	0.3 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION				
Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Petrel, Kerguelen
PTERODROMA BREVIROSTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11426 Gizzard	13 Ingestion	0-2 particles	0.2 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION				
Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Petrel, soft-plumaged
PTERODROMA MOLLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11427 Gizzard	18 Ingestion	0-1 particles	0.1 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION				
Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Plastics (No postings in CHEMLINE).

Petrel, white-bellied storm
FREGETTA GRALLARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11428 Gizzard	13 Ingestion	0-9 particles	1.2 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Petrel, white-faced storm
PELAGODROMA MARINA

Tissue	Cases Exposure Route	Range	Mean	General Information
11429 Gizzard	19 Ingestion	0-40 particles	11.7 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Prion, broad-billed
PACHYPTILA VITTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11430 Gizzard	31 Ingestion	0-3 particles	0.6 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Shearwater, greater
PUFFINUS GRAVIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11431 Gizzard	13 Ingestion	0-58 particles	12.2 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Plastics (No postings in CHEMLINE).

Shearwater, little
PUFFINUS ASSIMILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11432 Gizzard	18 Ingestion	0-11 particles	0.8 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Skua, Tristan
CATHARACTA SKUA HAMILTON

Tissue	Cases Exposure Route	Range	Mean	General Information
11433 Gizzard	11 Ingestion	0-3 particles	0.3 particles	Seabirds collected at Gough Island 9/7/83. Particles present in 10 of 15 species examined. Atlantic Ocean, south Counting
GIZZARDS; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; BIOACCUMULATION; WATER POLLUTION Furness, R.W. 1985 Environmental Pollution (Series A) 38:261-272				

Plutonium, isotope of mass 238
13981-16-8
Pu
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11434 Bone	a) 4 b) 10 c) 1	a) -1.0-0.45 pCi/kg b) -0.23-1.2 pCi/kg c) Not applicable Wet wt	a) -0.35 pCi/kg b) 0.16 pCi/kg c) -0.0037+/-0.017 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Femur Nevada, Nevada Test Site Alpha spectrometry
11435 Gonads	a) 4 b) 10	a) -0.80-0.45 pCi/kg b) -0.079-1.40 pCi/kg Wet wt	a) -0.27 pCi/kg b) 0.49 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg Nevada, Nevada Test Site Alpha spectrometry

(next page)

Plutonium, isotope of mass 238
13981-16-3
Pu

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11436 Liver	a) 4 b) 10 c) 1	a) 0.041-0.21 pCi/kg b) -0.0047-0.13 pCi/kg c) Not applicable Wet wt	a) 0.088 pCi/kg b) 0.052 pCi/kg c) 0.0089+/-0.042 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site Alpha spectrometry
11437 Lung	a) 4 b) 10 c) 1	a) 0.005-0.24 pCi/kg b) 0.058-0.28 pCi/kg c) Not applicable Wet wt	a) 0.11 pCi/kg b) 0.14 pCi/kg c) -0.02+/-0.067 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site Alpha spectrometry
11438 Lymph node	4	-0.39-3.6 pCi/kg Wet wt	1.1 pCi/kg Wet wt	Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg Tracheobronchial lymph nodes. Nevada, Nevada Test Site Alpha spectrometry
11439 Muscle	a) 4 b) 10 c) 1	a) 0.0037-0.054 pCi/kg b) -0.0046-0.022 pCi/kg c) Not applicable Wet wt	a) 0.033 pCi/kg b) 0.0089 pCi/kg c) 0.033+/-0.089 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Chukar
ALECTORIS CHUKAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11440 Bone	1	Not applicable	0.066+/-0.21 pCi/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site Alpha spectrometry
11441 Muscle	1	Not applicable	1.4+/-0.38 pCi/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Plutonium, isotope of mass 238
13981-16-3
Pu

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11442 Bone	4	-0.21-3.2 pCi/kg Wet wt	-0.19 pCi/kg Median Wet wt	Hock Collected 3/11-10/28/81. 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
11443 Liver	4	0.00-0.35 pCi/kg Wet wt	0.035 pCi/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
11444 Lung	4	-0.0075-0.031 pCi/kg Wet wt	0.00 pCi/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
11445 Muscle	4	0.0041-0.11 pCi/kg Wet wt	0.016 pCi/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11446 Bone	1	Not applicable	0.44+/-1.4 pCi/kg Wet wt	Femur 0.1 yr old, 12 kg, sudden death from enterotoxemia 6/2/81. Nevada, Rachel Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Plutonium, isotope of mass 238
13981-16-3
Pu
Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11447 Bone	1	*Not applicable*	<2.9 pCi/kg Wet wt	Femur Hit by bus 5/14/81. Approx 15-18 yr old, 550 kg. Nevada, Nevada Test Site Alpha spectrometry
11448 Muscle	1	Not applicable	<0.028 pCi/kg Wet wt	Hit by bus 5/14/81 Approx 15-18 yr old, 550 kg. Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Sheep, desert bighorn
OVIS CANADENSIS NELSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11449 Bone	17	-1.2-1.6 pCi/kg Wet wt	0.32 pCi/kg Median Wet wt	*Hock* 5/11 yr. Killed by hunters 11/15-12/20/81. Nevada. Clark, Esmeralda, and Lincoln Counties. Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Plutonium, isotope of mass 239
15117-48-3
Pu
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11450 Bone	a) 4 b) 10 c) 1	a) -0.17-1.5 pCi/kg b) 0.11-13.0 pCi/kg c) Not applicable Wet wt	a) 0.83 pCi/kg b) 2.52 pCi/kg c) 0.33+/-0.52 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Femur Nevada, Nevada Test Site Alpha spectrometry

(next page)

Plutonium, isotope of mass 239
15117-48-3
Pu

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11451 Gonads	a) 4 b) 10	a) 0.36-4.0 pCi/kg b) -0.064-2.4 pCi/kg Wet wt	a) 2.4 pCi/kg b) 0.62 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg Nevada, Nevada Test Site Alpha spectrometry
11452 Liver	a) 4 b) 10 c) 1	a) 0.32-1.1 pCi/kg b) 0.028-2.3 pCi/kg c) Not applicable Wet wt	a) 0.66 pCi/kg b) 0.91 pCi/kg c) 0.53+/-0.15 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site Alpha spectrometry
11453 Lung	a) 4 b) 10 c) 1	a) 0.57-3.4 pCi/kg b) 0.023-0.80 pCi/kg c) Not applicable Wet wt	a) 1.6 pCi/kg b) 2.8 pCi/kg c) 0.017+/-0.018 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site Alpha spectrometry
11454 Lymph node	4	8.7-59.0 pCi/kg Wet wt	23.4 pCi/kg Wet wt	Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg Tracheobronchial lymph nodes. Nevada, Nevada Test Site Alpha spectrometry
11455 Muscle	a) 4 b) 10 c) 1	a) 0.15-0.48 pCi/kg b) 0.012-0.16 pCi/kg c) Not applicable Wet wt	a) 0.32 pCi/kg b) 0.056 pCi/kg c) 0.24+/-0.25 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Chukar
ALECTORIS CHUKAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11456 Bone	1	Not applicable	-0.033+/-0.15 pCi/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site Alpha spectrometry

(next page)

Plutonium, isotope of mass 239
15117-48-3
Pu

Chukar
ALECTORIS CHUKAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11457 Muscle	1	Not applicable	0.35+/-0.41 pCi/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11458 Bone	4	0.34-3.2 pCi/kg Wet wt	1.3 pCi/kg Median Wet wt	Hock Collected 3/11-10/28/81. 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
11459 Liver	4	0.07-1.1 pCi/kg Wet wt	0.155 pCi/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
11460 Lung	4	0.072-0.14 pCi/kg Wet wt	0.12 pCi/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
11461 Muscle	4	0.0064-0.082 pCi/kg Wet wt	0.037 pCi/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Plutonium, isotope of mass 239
15117-48-3
Pu
Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11462 Bone	1	Not applicable	1.1+/-2.3 pCi/kg Wet wt	Femur 0.1 yr old, 12 kg, sudden death from enterotoxemia 6/2/81. Nevada, Rachel Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11463 Bone	1	Not applicable	<3.2 pCi/kg Wet wt	Femur, 26% ash Hit by bus 5/14/81. Approx 15-18 yr old, 550 kg. Nevada, Nevada Test Site Alpha spectrometry
11464 Muscle	1	Not applicable	<0.061 pCi/kg Wet wt	Hit by bus 5/14/81 Approx 15-18 yr old, 550 kg. Nevada, Nevada Test Site Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Sheep, desert bighorn
OVIS CANADENSIS NELSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11465 Bone	17	-0.18-4.3 pCi/kg Wet wt	0.23 pCi/kg Median Wet wt	Hock 5/11 yr. Killed by hunters 11/15-12/20/81. Nevada. Clark, Esmeralda, and Lincoln Counties. Alpha spectrometry
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Polonium, isotope of mass 210
13981-52-7
Po
MW 210, MP 254 C, BP 962 C

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11466 Bone	2 Ingestion	Not given	0.39+/-0.07 pCi/g	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 0.45+/-0.30, 2.28+/-0.80, and 9.89+/-1.97 pCi/g. Canada, British Columbia, Okanagan Highlands
11467 Liver	2 Ingestion	Not given	0.12+/-0.02 pCi/g	From area of high natural radioactivity. Levels in food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoroa/Alectoria) were, respectively 0.45+/-0.30, 2.28+/-0.80, and 9.89=/-1.97 pCi/g. Canada, British Columbia, Okanagan Highlands
11468 Muscle	2 Ingestion	Not given	0.04+/-0.06	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 0.45+/-0.30, 2.28+/-0.80, and 9.89+/-1.97 pCi/g. Canada, British Columbia, Okanagan Highlands Electrodeposition/alpha counting
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION Mahon, D.C. 1982 *Bulletin of Environmental Contamination and Toxicology* 29:697-703				

Sucker, finescale
CATOSTOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11469 Muscle	1 Ingestion	Not given	180 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, and algae were, respectively, 0.217, 3,000+/-2,500, and 2,430 pCi/kg (value in water pCi/L). Canada, British Columbia, Okanagan Highlands Electrodeposition/alpha counting
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION Mahon, D.C. 1982 *Bulletin of Environmental Contamination and Toxicology* 29:697-703				

Polonium, isotope of mass 210
13981-52-7
Po
MW 210, MP 254 C, BP 962 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11470 Gonads	a) 20 b) 18	a) Not given b) Not given	a) 0.007+/-0.002 Bq/g b) 0.005+/-0.0 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA
11471 Liver	a) 20 b) 18	a) Not given b) Not given	a) 0.013+/-0.002 Bq/g b) 0.012+/-0.004 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA
11472 Stomach	a) 20 b) 18	a) Not given b) Not given	a) 0.63+/-0.15 Bq/g b) 0.092+/-0.009 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11473 Bone	17 Ingestion	Not given	30+/-20 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, and algae were, respectively, 0.217, 3,000+/-2,500, and 2,430 pCi/kg (value in water pCi/L). Canada, British Columbia, Okanagan Highlands Electrodeposition/alpha counting
11474 Muscle	17 Ingestion	Not given	12+/-10 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, and algae were, respectively, 0.217, 3,000+/-2,500, and 2,430 pCi/kg (value in water pCi/L). Canada, British Columbia, Okanagan Highlands Electrodeposition/alpha counting
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703				

Polonium, isotope of mass 210
13981-52-7
Po
MW 210, MP 254 C, BP 962 C

Whitefish, lake
COREGONUS CLUPEAFORMIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11475 Gonads	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.02+/-0.01 Bq/g b) 0.006+/-0.002 Bq/g c) 0.011+/-0.007 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11476 Liver	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.03+/-0.01 Bq/g b) 0.016+/-0.004 Bq/g c) 0.03+/-0.01 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11477 Stomach	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.48+/-0.09 Bq/g b) 0.05+/-0.01 Bq/g c) 0.016+/-0.004 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Polybrominated biphenyl ethers (No postings in CHEMLINE).

Bream
ABRAMIS BRAMA

Tissue	Cases Exposure Route	Range	Mean	General Information
11478 Muscle	1	Not applicable	9.7 mg/kg Fat basis	Caught 1980, Haggan River, 1.5% fat content. Sweden GC/MS; GC-EC

SWEDEN; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; DDT; POLYCHLORINATED BIPHENYLS; BROMINATED HYDROCARBONS; WATER POLLUTION

Anderson, O.; Blomkvist, G. 1981 Chemosphere 10(9):1051-1060

Polybrominated biphenyl ethers (No postings in CHEMLINE).

Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11479 Muscle	a) 1 b) 2 c) 19 d) 5 e) 5 f) 10	a) Not detected b) 14-17 mg/kg c) 1.0-8.0 mg/kg d) 0.41-2.7 mg/kg e) 0.75-1.1 mg/kg f) 0.87-1.9 mg/kg Fat basis	a) Not detected b) 16 mg/kg c) 4.3 mg/kg d) 1.4 mg/kg e) 0.90 mg/kg f) 1.2 mg/kg Fat basis	a) Caught 1980, upper Viskan River before junction with Haggan River, 24% fat content b) Caught 1981, Haggan River, 8.6% fat content c) Caught 1980, lower Viskan River 5.0% fat content d) Caught 1979, outflow of Viskan River at Klosterfjorden Bay, 9.1% fat content e) Caught 1979, Klosterfjorden Bay, 4.7% fat content f) Caught 1980, Klosterfjorden Bay, 10% fat content. Detection limit 0.1 mg/kg fat. Sweden GC/MS; GC-EC
SWEDEN; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; DDT; POLYCHLORINATED BIPHENYLS; BROMINATED HYDROCARBONS; WATER POLLUTION Anderson, O.; Blomkvist, G. 1981 Chemosphere 10(9):1051-1060				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11480 Liver	a) 2 b) 1 c) 4	a) Not detected b) Not detected c) 71-110 mg/kg Fat basis	a) Not detected b) Not detected c) 88 mg/kg Fat basis	a) Caught 1980, upper Viskan River near its source, 0.63% fat content b) Caught 1980-81, upper Viskan River near junction with Haggan River, 5.8% fat content c) Caught 1980-81, Haggan River, 0.52% fat content. Detection limit 0.1 mg/kg fat. Sweden GC/MS; GC-EC
11481 Muscle	a) 5 b) 4	a) Not detected b) 20-27 mg/kg Fat basis	a) Not detected b) 24 mg/kg Fat basis	a) Caught 1980, upper Viskan River near its source, 0.63% fat content b) Caught 1980-81, Haggan River, 0.52% fat content. Detection limit 0.1 mg/kg fat. Sweden GC/MS; GC-EC
SWEDEN; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; DDT; POLYCHLORINATED BIPHENYLS; BROMINATED HYDROCARBONS; WATER POLLUTION Anderson, O.; Blomkvist, G. 1981 Chemosphere 10(9):1051-1060				

Polybrominated biphenyl ethers (No postings in CHEMLINE).

Tench
TINCA TINCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11482 Muscle	1	Not applicable	0.95 mg/kg Fat basis	Caught 1980, Haggan River, 5.3% fat content. Sweden GC/MS; GC-EC
SWEDEN; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; DDT; POLYCHLORINATED BIPHENYLS; BROMINATED HYDROCARBONS; WATER POLLUTION Anderson, O.; Blomkvist, G. 1981 Chemosphere 10(9):1051-1060				

Trout, sea
SALMO OCLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11483 Muscle	5	0.11-2.7 mg/kg Fat basis	1.4 mg/kg Fat basis	Caught 1979, near outflow of Viskan River at Klosterfjorden Bay, 1.1% fat content. Sweden GC/MS; GC-EC
SWEDEN; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; DDT; POLYCHLORINATED BIPHENYLS; BROMINATED HYDROCARBONS; WATER POLLUTION Anderson, O.; Blomkvist, G. 1981 Chemosphere 10(9):1051-1060				

Polybrominated biphenyls (No postings in CHEMLINE).

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11484 Adipose	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 0.30 ug/g b) 0.79 ug/g	a) Plot 1 b) Plot 2 Grazed 180 days of 0.57 ha plots of bluegrass contaminated in 10/75, 6 mo before start of grazing. Means of groups grazed 60 days each ranged from 0.13+/-0.5-0.22+/-0.09 ug/g for a) and 0.60+/-0.43-0.61+/-0.73 ug/g for b). Subcutaneous and omental fats. GC
DELIBERATE EXPOSURE; TERRESTRIAL; SHEEP; ADIPOSE TISSUE; PESTICIDES; DDE; HEXACHLOROBENZENE; POLYBROMINATED BIPHENYLS; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS Fries, G.F.; Marrow, G.S. 1982 Journal of Animal Science 55(5):1118-1124				

Polychlorinated dibenso-p-dioxin (No postings in CHEMLINE).

Cormorant, double-crested
PHALACROCORAX AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11485 Body		Not given	25 ng/kg	Average of 3 samples of nestling collected in 1983 from Spider Island and Gravelly Island, Lake Michigan. CC; EC

FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; EGGS; WISCONSIN; GREAT LAKES; BIOMAGNIFICATION; POLYCHLORINATED DIBENZOFURANS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED BIPHENYLS
Stalling, D.L.; Norstrom, R.J.; Smith, L.M.; Simon, M. 1985 Chemosphere 14(6/7):627-643

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
11486 Body		a) 88-188 ng/kg b) Not given	a) Not given b) 214 ng/kg	a) Green Bay, 1978 b) Green Bay, 1982 Wisconsin CC; EC

FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; EGGS; WISCONSIN; GREAT LAKES; BIOMAGNIFICATION; POLYCHLORINATED DIBENZOFURANS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED BIPHENYLS
Stalling, D.L.; Norstrom, R.J.; Smith, L.M.; Simon, M. 1985 Chemosphere 14(6/7):627-643

Tern, Forster's
STERNA FORSTERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11487 Eggs		a) Not given b) Not given	a) 114+/-46 ng/kg b) 21+/-13 ng/kg	a) Green Bay, Oconto Marsh, heavily contaminated b) Lake Poygan, relatively clean Collected 1983. Wisconsin CC; EC

FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; EGGS; WISCONSIN; GREAT LAKES; BIOMAGNIFICATION; POLYCHLORINATED DIBENZOFURANS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED BIPHENYLS
Stalling, D.L.; Norstrom, R.J.; Smith, L.M.; Simon, M. 1985 Chemosphere 14(6/7):627-643

Polychlorinated dibenzofurans (No postings in CHEMLINE).

Cormorant, double-crested
PHALACROCORAX AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11488 Body		Not given	*10 ng/kg*	*Average of 3 samples of nestling collected in 1983 from Spider Island and* Gravelly Island, Lake Michigan. CC; EC
FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; EGGS; WISCONSIN; GREAT LAKES; BIOMAGNIFICATION; POLYCHLORINATED DIBENZOFURANS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED BIPHENYLS Stalling, D.L.; Norstrom, R.J.; Smith, L.M.; Simon, M. 1985 Chemosphere 14(6/7):627-643				

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
11489 Body		a) Not detected-8 ng/kg b) Not given	a) Not given b) 53 ng/kg	a) Green Bay, 1978, detection limit 20 ng/kg b) Green Bay, 1982 Wisconsin CC; EC
FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; EGGS; WISCONSIN; GREAT LAKES; BIOMAGNIFICATION; POLYCHLORINATED DIBENZOFURANS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED BIPHENYLS Stalling, D.L.; Norstrom, R.J.; Smith, L.M.; Simon, M. 1985 Chemosphere 14(6/7):627-643				

Tern, Forster's
STERNA FORSTERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11490 Eggs	a) 6 b) 2	a) Not given b) Not given	a) 19+/-6 ng/kg b) 9 ng/kg	a) Green Bay, Oconto Marsh, heavily contaminated b) Lake Poygan, relatively clean Collected 1983. Wisconsin CC; EC
FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; EGGS; WISCONSIN; GREAT LAKES; BIOMAGNIFICATION; POLYCHLORINATED DIBENZOFURANS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED BIPHENYLS Stalling, D.L.; Norstrom, R.J.; Smith, L.M.; Simon, M. 1985 Chemosphere 14(6/7):627-643				

Polychlorinated quaterphenyl (No postings in CHEMLINE).

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
11491 Adipose	4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 6.0 ug b) 8.2 ug c) 3.1 ug d) 2.5 ug e) 5.1 ug f) 6.0 ug	a) p-isomer, 0.16% of dose b) m,p-isomer, 0.036% c) o,p-isomer, 0.018% d) o-isomer, 0.022% e) o,m-isomer, 0.013% f) m-isomer, 0.024% Isomer doses 3840, 22920, 17280, 11340, 39420, 25200 ug, respectively of synthetic PCQs. Autopsies 7 d after single dose 2 g of mixture/kg body wt, male ddY strain. Japan HPLC
11492 Blood	4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1.2 ug b) 1.4 ug c) 0.4 ug d) 0.4 e) 0.8 ug f) 0.9 ug	a) p-isomer, 0.03% of dose b) m,p-isomer, 0.006% c) o,p-isomer, 0.002% d) o-isomer, 0.004% e) o,m-isomer, 0.002% f) m-isomer, 0.004% Isomer doses 3840, 22920, 17280, 11340, 39420, 25200 ug, respectively of synthetic PCQs. Autopsies 7 d after single dose 2 g of mixture/kg body wt, male ddY strain. Japan HPLC
11493 Heart	4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1.6 ug b) 1.2 ug c) 0.5 ug d) 0.7 ug e) 0.9 ug f) 0.7 ug	a) p-isomer, 0.04% of dose b) m,p-isomer, 0.005% c) o,p-isomer, 0.003% d) o-isomer, 0.006% e) o,m-isomer, 0.002% f) m-isomer, 0.003% Isomer doses 3840, 22920, 17280, 11340, 39420, 25200 ug, respectively of synthetic PCQs. Autopsies 7 d after single dose 2 g of mixture/kg body wt, male ddY strain. Japan HPLC
11494 Kidney	4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 4.0 ug b) 3.5 ug c) 1.4 ug d) 1.7 ug e) 2.0 ug f) 2.2 ug	a) p-isomer, 0.10% of dose b) m,p-isomer, 0.02% c) o,p-isomer, 0.008% d) o-isomer, 0.015% e) o,m-isomer, 0.005% f) m-isomer, 0.009% Isomer doses 3840, 22920, 17280, 11340, 39420, 25200 ug, respectively of synthetic PCQs. Autopsies 7 d after single dose 2 g of mixture/kg body wt, male ddY strain. Japan HPLC

(next page)

Polychlorinated quaterphenyl (No postings in CHEMLINE).

Mouse

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11495 Liver	4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 99.0 ug b) 420 ug c) 109 ug d) 42 ug e) 172 ug f) 410 ug	a) p-isomer, 2.6% of dose b) m,p-isomer, 1.8% c) o,p-isomer, 0.6% d) o-isomer, 0.4% e) o,m-isomer, 0.4% f) m-isomer, 1.6% Isomer doses 3840, 22920, 17280, 11340, 39420, 25200 ug, respectively of synthetic PCQs. Autopsies 7 d after single dose 2 g of mixture/kg body wt, male ddY strain. Japan HPLC
11496 Lung	4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1.4 ug b) 1.1 ug c) 0.5 ug d) 0.6 ug e) 0.8 ug f) 0.7 ug	a) p-isomer, 0.04% of dose b) m,p-isomer, 0.005% c) o,p-isomer, 0.003% d) o-isomer, 0.005% e) o,m-isomer, 0.002% f) m-isomer, 0.003% Isomer doses 3840, 22920, 17280, 11340, 39420, 25200 ug, respectively of synthetic PCQs. Autopsies 7 d after single dose 2 g of mixture/kg body wt, male ddY strain. Japan HPLC
11497 Spleen	4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.7 ug b) 0.7 ug c) 0.2 ug d) 0.2 ug e) 0.4 ug f) 0.6 ug	a) p-isomer, 0.02% of dose b) m,p-isomer, 0.003% c) o,p-isomer, 0.001% d) o-isomer, 0.002% e) o,m-isomer, 0.001% f) m-isomer, 0.002% Isomer doses 3840, 22920, 17280, 11340, 39420, 25200 ug, respectively of synthetic PCQs. Autopsies 7 d after single dose 2 g of mixture/kg body wt, male ddY strain. Japan HPLC
DELIBERATE EXPOSURE; MICE; LIVER; KIDNEYS; LUNGS; HEART; SPLEEN; BLOOD; ADIPOSE TISSUE; POLYCHLORINATED QUATERPHENYLS Mochiike, A.; Matuso, T.; Kanamori, H.; Hoshita, N.; Sakamoto, I. 1986 Chemosphere 15(5):599-606				

Polychlorinated quaterphenyl (No postings in CHEMLINE).

Rat
RATTUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11498 Blood		a) 0.6-0.7 ppm b) 0.09-0.29 ppm c) 0.03-0.03 ppm d) 0.02-0.02 ppm e) 0.04-0.05 ppm f) 0.20-0.09 ppm Ranges of means	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 4,4'-PCQ, peak 1.6+/-0.02 ppm at 8 hr after dose b) 3,4'-PCQ, peak 0.75 ppm at 23 hr c) 3.3'-PCQ, peak 0.29 ppm at 15 hr d) 2,3'-PCQ, peak 0.18 ppm at 12 hr e) 2,4'-PCQ, peak 0.63 ppm at 15 hr Levels at 3-4 and 120 hr after oral dose of 1 mg/kg PCQ congeners. Wistar rats, age 4 wk, wt 80-100 g. Estimated from graph. GC
POLYCHLORINATED QUATERPHENYLS; RATS; TERRESTRIAL; DELIBERATE EXPOSURE; BLOOD; COMPARATIVE EVALUATIONS Takenaka, S.; Takahashi, K.; Masuda, Y. 1986 Chemosphere 15(6):739-745				

Polychlorinated styrene (No postings in CHEMLINE).

Cormorant, olivaceous
PHALACROCORAX OLIVACEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11499 Carcass		a) 0.1-0.4 ppm b) Not given Wet wt	a) 0.13 ppm b) Not given Wet wt Geometric mean	a) 1980 b) 1981 Shot with steel shot at Atkinson Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Texas, Galveston Bay CC; GLC-EC
11500 Eggs	a) 13 b) 18	a) Not given b) Not detected	a) 0.2 ppm b) Not detected Wet wt	a) 1980. Detected in 1/13 b) 1981. Detection limit 0.1 ppm wet wt. Texas, Galveston Bay CC; GLC-EC
BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376				

Polychlorinated styrene (No postings in CHEMLINE).

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11501 Carcass		a) 0.1-0.2 ppm b) Not detected Wet wt	a) Not given b) Not detected	a) 1980 b) 1981 Shot with steel shot at Atkinson Island, Little Pelican Island, and South Deer Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Mean for a) is geometric. Detection limit 0.1 ppm wet wt. Texas, Galveston Bay CC; GLC-EC
11502 Eggs	a) 20 b) 20	a) Not detected b) Not detected	a) Not detected b) Not detected	a) 1980 b) 1981 Detection limit 0.1 ppm wet wt. Texas, Galveston Bay CC; GLC-EC
BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376				

Skimmer, black
RHYNCHOPS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
11503 Carcass		a) Not detected b) Not detected c) Not given	a) Not detected b) Not detected c) 0.6 ppm Wet wt	a) 1980 b) 1981 c) 1982 Shot with steel shot at Atkinson Island, Little Pelican island, and near Swan Lake. Carcasses analyzed did not include skin, bills, feet, gastrintestinal tracts, livers, or kidneys. Detection limit 0.1 ppm wet wt. Texas, Galveston Bay CC; GLC-EC
11504 Eggs	a) 20 b) 20 c) 20	a) 0.1-0.2 ppm b) Not detected c) Not detected Wet wt	a) Not given b) Not detected c) Not detected	a) 1980. Detected in 5/20 b) 1981. Detected in 6/20 c) 1982. Detected in 2/20 Collected from nests early each nesting season. Geometric mean. Texas, Galveston Bay CC; GLC-EC
BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376				

Polycyclic aromatic hydrocarbons (No postings in CHEMLINE).
EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Burbot
LOTA LOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11505 Gall bladder		Not given	313 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11506 Liver		Not given	444 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11507 Muscle		Not given	26 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11508 Muscle		Not detected-33 ug/kg Wet wt	Not given	Collected from 2 sites, 11/7, 10/20, 12/1/78. Detection limit 0.5 ug/kg. Composite samples. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11509 Body		a) Not detected-118 ug/kg b) Not detected-148 ug/kg Wet wt	a) Not given b) Not given	a) Collections from 4 sites, 10/9 and 10/12/78 b) From 3 sites, 5/9, 5/23, 6/5/79 Detection limit 0.5 ug/kg. Composite samples of at least 10 individuals analyzed. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Polycyclic aromatic hydrocarbons (No postings in CHEMLINE).
EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11510 Body		a) Not detected-2.01.6 ug/kg b) 0.9-100.1 ug/kg c) 4.8-90.3 ug/kg d) 6.4-42.8 ug/kg e) Not detectable-7.2 ug/kg	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Palmetto Bay Marina, 10 sites, spring b) Summer c) Outdoor Resorts Marina, 8 sites, spring d) Summer e) Fripp Island Marina, 9 sites, spring f) Summer Pooled, 15 adults/sample, collected weekly from mid-intertidal areas of reefs in different sites at each marina. 3/29-4/14/83 and 7/26-8/11/83. For each group, n=3. Ranges of means. Detection limits given for individual PAH's, not totals. South Carolina, Beaufort County HPLC
AQUATIC; ENVIRONMENTAL EXPOSURE; MOLLUSKS; SOUTH CAROLINA; WATER POLLUTION; FOOD CONTAMINATION; BENZOPYRENE; POLYCYCLIC AROMATIC HYDROCARBONS Marcus, J.M.; Stokes, T.P. 1985 Bulletin of Environmental Contamination and Toxicology 35:835-844				

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11511 Gall bladder		Not given	237 ug/kg Wet wt	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11512 Liver		Not given	118 ug/kg Wet wt	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11513 Muscle		17-30 ug/kg Wet wt	Not given	Collected from 2 sites, 12/1/78, 7/3/79. Detection limit 0.5 ug/kg. Composite samples. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Polycyclic aromatic hydrocarbons (No postings in CHEMLINE).
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Scallop
PECTEN MAXIMUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11514 Gonads	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 7.3 ppm b) 5.9 ppm c) 2.4 ppm d) 8.3 ppm e) 14.9 ppm f) 12.7 ppm Dry wt, chrysene equivalents	a) St Brieuc, 2/13/81 b) 4/3/81 c) 5/26/81 d) 6/26/81 e) Brest, 2/12/81 f) Camaret, 4/15/81 Locations and sampling dates 2-3 yr old adult specimens from northern coasts of Brittany after oil spills during 1978-1980. France Fluorimetry
11515 Muscle	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 3.6 ppm b) 2.7 ppm c) 1.1 ppm d) 5.3 ppm e) 3.8 ppm f) 7.7 ppm Dry wt, chrysene equivalents	a) St Brieuc, 2/13/81 b) 4/3/81 c) 5/26/81 d) 6/26/81 e) Brest, 2/12/81 f) Camaret, 4/15/81 Locations and sampling dates 2-3 yr old adult specimens from northern coasts of Brittany after oil spills during 1978-1980. France Fluorimetry
11516 Somatic	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 9.9 ppm b) 5.4 ppm c) 2.1 ppm d) 18.8 ppm e) 19.3 ppm f) 16.6 ppm Dry wt, chrysene equivalents	a) St Brieuc, 2/13/81 b) 4/3/81 c) 5/26/81 d) 6/26/81 e) Brest, 2/12/81 f) Camaret, 4/15/81 Locations and sampling dates 2-3 yr old adult specimens from northern coasts of Brittany after oil spills during 1978-1980. France Fluorimetry

GONADS; SOMATIC TISSUE; MUSCLES; SCALLOPS; AQUATIC; ENVIRONMENTAL EXPOSURE; FRANCE; POLYCYCLIC AROMATIC HYDROCARBONS; BIOINDICATORS; BIOLOGICAL MONITORING; BIOACCUMULATION; WATER POLLUTION; MEASUREMENT METHODS
Friocourt, M.P.; Bodennec, G.; Berthou, F. 1985 Bulletin of Environmental Contamination and Toxicology 34;228-238

Polycyclic aromatic hydrocarbons (No postings in CHEMLINE).
EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Sole, English
PAROPHRYS VETULUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11517 Bile	a) 58 b) 20 c) 21 d) 18 e) 21 f) 16	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 1400+/-2200 ng/g b) 520+/-410 ng/g c) 270+/-700 ng/g d) 110+/-120 ng/g e) 91+/-82 ng/g f) 67+/-45 ng/g Wet wt	a) Dunwamish Waterway, a major urban waterway with large industrial output b) Inner Everett Harbor, urban industrial with sewage, papermill c) Richmond Beach with sewage, oil transfer/storage facility d) Carkeek, with sewage e) Edmunds, ferry terminal, sewage, oil transfer/storage, marina f) Useless Bay, reference site, not source of pollution 6 or 11 sites surveyed in study. Fluorescence measured at 380/430 nm, BaP wavelength. Washington, Puget Sound HPLC/FD
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BILE; WATER POLLUTION; POLYCYCLIC AROMATIC HYDROCARBONS Krahn, M.M.; Rhodes, L.D.; Myers, M.S.; Moore, L.K.; MacLeod, W.D.; Malins, D.C. 1986 Archives of Environmental Contamination and Toxicology 15:61-67				

Polydimethylsiloxane (No postings in CHEMLINE).

Crab
CARCINUS MAENAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11518 Body	20 Ingestion	Not given	8 ppm/g	After 15 d, 200 ppm in water. Fed on annelids with 7.3 ppm/g accumulated levels. Controls, negative. AAS
BODY; AQUATIC; FISHES; CRUSTACEANS; MOLLUSKS; DELIBERATE EXPOSURE; BIOACCUMULATION; BIOLOGICAL MONITORING; WATER POLLUTION; POISONING Aubert, M.; Aubert, J.; Augier, H.; Guillemaut, C. 1985 Chemosphere 14(1):127-138				

Goldfish
CARASSIUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11519 Body	Ingestion	Not given	20 ppm/g	After 12 d, 200 ppm in water. Fed on plankton with 380 ppm/g accumulated levels. Controls, negative. AAS
BODY; AQUATIC; FISHES; CRUSTACEANS; MOLLUSKS; DELIBERATE EXPOSURE; BIOACCUMULATION; BIOLOGICAL MONITORING; WATER POLLUTION; POISONING Aubert, M.; Aubert, J.; Augier, H.; Guillemaut, C. 1985 Chemosphere 14(1):127-138				

Polydimethylsiloxane (No postings in CHEMLINE).

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11520 Body	40 Ingestion	Not given	50 ppm/g	After 12 d, 200 ppm in water. Fed on phytoplankton with 417 ppm/g accumulated levels. Controls, negative. AAS
BODY; AQUATIC; FISHES; CRUSTACEANS; MOLLUSKS; DELIBERATE EXPOSURE; BIOACCUMULATION; BIOLOGICAL MONITORING; WATER POLLUTION; POISONING				
Aubert, M.; Aubert, J.; Augier, H.; Guillemaut, C. 1985 Chemosphere 14(1):127-138				

Scorpionfish
SCORPAENA PORCUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11521 Body	Ingestion	Not given	10 ppm/g	After 15 d, 200 ppm in water. Fed on annelids with 7.3 ppm/g accumulated levels. Controls, negative. AAS
BODY; AQUATIC; FISHES; CRUSTACEANS; MOLLUSKS; DELIBERATE EXPOSURE; BIOACCUMULATION; BIOLOGICAL MONITORING; WATER POLLUTION; POISONING				
Aubert, M.; Aubert, J.; Augier, H.; Guillemaut, C. 1985 Chemosphere 14(1):127-138				

Potassium
7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11522 Blood	10	</=1.9 g/kg Wet wt	0.72 g/kg Median Wet wt	Sampled 10/81 0.5-14.0 yr olds, 148-532 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Potassium

7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11523 Brain	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 3,530 ug/g b) 3,300 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE

Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295

Tissue	Cases Exposure Route	Range	Mean	General Information
11524 Kidney	90	0.05X10(E+3)->3.2X10(E+3) ppm	2,140+/-646 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES

BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION

Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565

Tissue	Cases Exposure Route	Range	Mean	General Information
11525 Kidney	a) 4 b) 8	a) 2.7-5.7 g/kg b) 2.0-3.5 g/kg Wet wt	a) 4.8 g/kg b) 2.9 g/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg Nevada, Nevada Test Site

CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL

Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp

Potassium
7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11526 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 2,630 ug/g b) 2,770 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Tissue	Cases Exposure Route	Range	Mean	General Information
11527 Liver	229	0.1X10(E+3)-4.1X10(E+3) ppm	2,600+/-733 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES
BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565				

Tissue	Cases Exposure Route	Range	Mean	General Information
11528 Liver	a) 4 b) 10 c) 1	a) 5.3-6.5 g/kg b) 3.3-4.1 g/kg c) Not applicable Wet wt	a) 5.6 g/kg b) 3.6 g/kg c) 4.0+/-0.3 g/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Potassium
7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11529 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 3,910 ug/g b) 3,650 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE				
Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Tissue	Cases Exposure Route	Range	Mean	General Information
11530 Lung	a) 4 b) 10 c) 1	a) 2.3-7.9 g/kg b) 1.9-5.3 g/kg c) Not applicable Wet wt	a) 6.0 g/kg b) 3.04 g/kg c) 2.8+/-1.9 g/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site
11531 Muscle	a) 4 b) 10 c) 1	a) 6.3-7.2 g/kg b) 3.8-5.2 g/kg c) Not applicable Wet wt	a) 6.7 g/kg b) 4.6 g/kg c) 4.9+/-0.26 g/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg c) 5/81, fetus Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Tissue	Cases Exposure Route	Range	Mean	General Information
11532 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 2,730 ug/g b) 2,670 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

(next page)

Potassium
7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11533 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 4,380 ug/g b) 4,040 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Tissue	Cases Exposure Route	Range	Mean	General Information
11534 Thyroid gland	4	</=5.0 g/kg Wet wt	1.9 g/kg Wet wt	Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg Gamma spectrum negligible in 2 cases. Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Chukar
ALECTORIS CHUKAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11535 Muscle	1	Not applicable	8.5+/-0.48 g/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site
11536 Viscera	1	Not applicable	11.0+/-0.85 g/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Potassium

7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11537 Kidney	4	3.3-81.0 g/kg Wet wt	6.1 g/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site
11538 Liver	4	3.3-5.6 g/kg Wet wt	4.35 g/kg Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site
11539 Lung	4	2.4-6.3 g/kg Wet wt	4.5 g/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site
11540 Muscle	4	3.4-<42 g/kg Wet wt	5.0 g/kg Median Wet wt	Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11541 Liver	1	Not applicable	3.6+/-0.31 g/kg Wet wt	Femur 0.1 yr old, 12 kg, sudden death from enterotoxemia 6/2/81. Nevada, Rachel
11542 Lung	1	Not applicable	6.8+/-0.47 g/kg Wet wt	Femur 0.1 yr old, 12 kg, sudden death from enterotoxemia 6/2/81. Nevada, Rachel
11543 Muscle	1	Not applicable	5.4+/-0.39 g/kg Wet wt	Femur 0.1 yr old, 12 kg, sudden death from enterotoxemia 6/2/81. Nevada, Rachel
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Potassium

7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11544 Muscle	1	Not applicable	7.7+/-0.37 g/kg Wet wt	Hit by bus 5/14/81 Approx 15-18 yr old, 550 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11545 Blood, serum	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 4.6+/-0.2 mmol/L b) 4.2+/-0.2 mmol/L c) 4.6+/-0.2 mmol/L d) 5.1+/-0.2 mmol/L e) 5.1+/-0.2 mmol/L f) 5.1+/-0.2 mmol/L g) 4.3+/-0.2 mmol/L h) 4.4+/-0.2 mmol/L i) 4.5+/-0.2 mmol/L S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (35% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS g) At slaughter, 40 d after weaning, basal diet h) With CSM i) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS
11546 Blood, whole	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 888+/-118 ug/ml b) 627+/-118 ug/ml c) 656+/-118 ug/ml d) 560+/-112 ug/ml e) 394+/-112 ug/ml f) 464+/-112 ug/ml g) 647+/-76 ug/ml h) 673+/-76 ug/ml i) 717+/-76 ug/ml S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (3.5% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS g) At slaughter, 40 d after weaning, basal diet h) With CSM i) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS
11547 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2+/-0.3 mg/g b) 2+/-0.3 mg/g c) 2+/-0.3 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

(next page)

Potassium
7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11548 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1.8+/-0.1 mg/g b) 1.5+/-0.1 mg/g c) 1.8+/-0.1 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
11549 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1.3+/-0.04 mg/g b) 1.4+/-0.04 mg/g c) 1.3+/-0.04 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
11550 Milk	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 998+/-92 ug/ml b) 1,252+/-92 ug/ml c) 1,084+/-92 ug/ml d) 974+/-80 ug/ml e) 1,064+/-80 ug/ml f) 1,007+/-80 ug/ml S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (3.5% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS
11551 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2+/-0.3 mg/g b) 2+/-0.3 mg/g c) 2+/-0.3 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
11552 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 28+/-1 mg/g b) 21+/-1 mg/g c) 25+/-1 mg/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE

Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424

Potassium
7440-09-7
K
AtW 39.098, MP 63.2 C, BP 765.5 C, VP 100 mm Hg at 590 C

Sheep, desert bighorn
OVIS CANADENSIS NELSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11553 Kidney	17	2.6-8.8 g/kg Wet wt	4.1 g/kg Median Wet wt	Killed by hunters 11/15-12/20/81 Approx age 5-11 yr. Nevada. Clark, Esmeralda, and Lincoln Counties.

CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL

Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
11554 Body		0.18-0.40% Dry wt	0.24% Dry wt	Collected during 1978-80. Levels higher during post-monsoon (Oct-Jan). Little inter- and intra-specific variations. India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS

Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
11555 Body		0.50-0.80% Dry wt	0.64% Dry wt	Collected during 1978-80. Levels higher during post-monsoon (Oct-Jan). Little inter- and intra-specific variations. India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS

Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Propane, 2,2'-oxybis(2-chloro-
39638-32-9
C6-H12-Cl2-O
MW 171.07

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11556 Body		Not given	130 ppb Wet wt	Composite sample, collected 5/80-6/80, The Rigolets at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11557 Body		Not given	0.8 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Proplonaldehyde, 2-methyl-2-(methylthio)-, O-(methylcarbamoyl)oxime (8 CI); Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime (9 CI)
116-06-3
C7-H14-N2-O2-S
MW 190.25, MP 99-100 C, VP less than 0.5 mm Hg at 20 C

Midge
CHIRONOMUS RIPARIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11558 Body	a) 50 b) 50 c) 50	a) Not given b) Not given c) Not given	a) 363+/-133 ppb b) 357+/-58 ppb c) 564+/-56 ppb S.E.	a) pH 4 b) pH 6 c) pH 8 Distribution of radioactivity in 3rd to 4th instar larvae exposed to 50 ug [C-14]-aldicarb in 0.5 mL acetone added to 5 L water. Average of 4 replicates. 100% of radioactivity unextractable. Scintillation counting
FISHES; MIDGES; SNAILS; DELIBERATE EXPOSURE; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BODY Suorsa, K.E.; Fisher, S.W. 1986 Ecotoxicology and Environmental Safety 11:81-90				

Propionaldehyde, 2-methyl-2-(methylthio)-, O-(methylcarbamoyl)oxime (8 CI); Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime (9 CI)
116-06-3
C7-H14-N2-O2-S
MW 190.25, MP 99-100 C, VP less than 0.5 mm Hg at 20 C

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11559 Body	6	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 7+/-1 ppb b) 65+/-5 ppb c) 12+/-2 ppb d) 93+/-14 ppb e) 28+/-17 ppb f) 85+/-10 ppb S.E.	a) pH 4, extractable b) pH 4, unextractable c) pH 6, extractable d) pH 6, unextractable e) pH 8, extractable f) pH 8, unextractable Distribution of radioactivity in fish exposed to 50 ug [C-14]-aldicarb in 0.5 mL acetone added to 5 L water. Microcosm included mosquito larvae added d 1, fish added d 4. Systems terminated d 6. Average of 4 replicates. Scintillation counting
FISHES; MIDGES; SNAILS; DELIBERATE EXPOSURE; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BODY Suorsa, K.E.; Fisher, S.W. 1986 Ecotoxicology and Environmental Safety 11:81-90				

Snail
HELISOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11560 Body	a) 3 b) 3 c) 3	a) Not given b) Not given c) Not given	a) 36+/-6 ppb b) 32+/-11 ppb c) 38+/-8 ppb S.E.	a) pH 4 b) pH 6 c) pH 8 Distribution of radioactivity in snails exposed to 50 ug [C-14]-aldicarb in 0.5 mL acetone added to 5 L water. Average of 4 replicates. 100% of radioactivity unextractable. Scintillation counting
FISHES; MIDGES; SNAILS; DELIBERATE EXPOSURE; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BODY Suorsa, K.E.; Fisher, S.W. 1986 Ecotoxicology and Environmental Safety 11:81-90				

Pydraul 50E
66594-31-8
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11561 Body, whole	148	a) <0.2-0.3 ug/g b) 8-10 ug/g c) 316-339 ug/g d) <0.2-4 ug/g e) 16-19 ug/g f) 195-258 ug/g g) <0.4-<0.4 ug/g h) 9-12 ug/g i) 127-227 ug/g	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) Unexposed control, component measured was triphenyl phosphate 30 & 60 d b) As in a) except exposed to 10 ug/L Pydraul, 60 & 90 d c) As in a) except exposed to 176 ug/L, 30 & 60 d d) Unexposed control, component measured was cumylphenyl diphenyl phosphate, 90 & 60 d e) As in d) except exposed to 9 ug/L, 60 & 90 d f) As in d) except exposed to 186 ug/L, 60 & 30 d g) Unexposed control, component measured was nonylphenyl diphenyl phosphate, 30, 60, 90 d h) As in g) except exposed to 20 ug/L Pydraul, 90 & 60 d i) As in g) except exposed to 390 ug/L, 60 & 30 d Additional pre-, post-exposure data for different exposure levels/durations. Missouri, Columbia GC
DELIBERATE EXPOSURE; FISHES; BODY; AQUATIC; PHOSPHATE ESTERS; WATER POLLUTION; FIRE RETARDANTS Cleveland, L.; Mayer, F.L.; Buckler, D.R.; Palawski, D.U. 1986 Environmental Toxicology and Chemistry 5:273-282				

Pyrene
129-00-0
C16-H10
MW 202.24, MP 156 C, BP 404 C
Burbot
LOTA LOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11562 Gall bladder		Not given	25 ug/g Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11563 Liver		Not given	62 ug/g Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11564 Muscle		Not given	4 ug/g Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Pyrene
129-00-0
C16-H10
MW 202.24, MP 156 C, BP 404 C

Clam
TRIDACNA MAXIMA

Tissue	Cases Exposure Route	Range	Mean	General Information
11565 Body		a) <0.03-1.2 ug/g b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) <0.04-1.4 ug/g h) Not applicable i) Not applicable j) <0.07-<0.07 ug/g	a) Not given b) <0.1 ug/g c) 0.2 ug/g d) <0.06 ug/g e) <0.07 ug/g f) 0.1 ug/g g) Not given h) <0.07 ug/g i) 0.09 ug/g j) <0.07 ug/g	a) Heron Island, 7 sites b) Polmaise Reef, 1 site c) Masthead Island, 1 site d) Wistari Reef e) One Trec Island, 1 site f) Wreck Island, 1 site g) Lizard Island, 4 sites h) Carter Reef, 1 site i) Flinder's Reef, 1 site j) Orpheus Island, 3 sites Collections in Great Barrier Reef. Levels are lowest reported in the world. Detection limit <0.07 ug/kg wet wt. Australia, Great Barrier Reef Fluorimetry
BODY; CLAMS; AQUATIC; ENVIRONMENTAL EXPOSURE; AUSTRALIA; POLYCYCLIC AROMATIC HYDROCARBONS; WATER POLLUTION; LAND POLLUTION; BIOACCUMULATION; ANIMAL POPULATIONS Smith, J.D.; Bagg, J.; Bycroft, B.M. 1985 Environmental Science and Technology 18(5):353-358				

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11566 Muscle		Not detected-6 ug/kg Wet wt	Not given	Collected from 2 sites, 11/7, 10/20, 12/1/78. Detection limit 0.5 ug/kg. Composite samples. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Pyrene
129-00-0
C16-H10
MW 202.24, MP 156 C, BP 404 C

Mussel
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11567 Body	a) 29 b) 28	a) Not given b) Not given	a) 4 ppb b) 4 ppb Wet wt	a) Western, industrial area b) Eastern, agricultural area One of 17 PAHs measured. Total PAH was 110 ng/g, carcinogenic PAH 38 ng/g (values in eastern area were 77 and 14 ng/g, respectively. Greece, Thermaikos Gulf GC
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; MOLLUSKS; WATER POLLUTION; POLYCYCLIC AROMATIC HYDROCARBONS; GREECE; BODY; CARCINOGEN Iosifidou, H.G.; Kilikidis, S.D.; Kamarianos, A.P. 1982 Bulletin of Environmental Contamination and Toxicology 28:535-541				

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11568 Body		a) Not detected-21 ug/kg b) Not detected-77 ug/kg Wet wt	a) Not given b) Not given	a) Collections from 4 sites, 10/9 and 10/12/78 b) From 3 sites, 5/9, 5/23, 6/5/79 Detection limit 0.5 ug/kg. Composite samples of at least 10 individuals analyzed. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11569 Body		Not given	200 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

Pyrene
129-00-0
C16-H10
MW 202.24, MP 156 C, BP 404 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11570 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) 0.8-1.2 ug/g Dry wt	a) 0.6 ug/g b) 0 ug/g c) 0 ug/g d) 0.3 ug/g e) 0 ug/g f) Not given Dry wt	a) Wreck Shoals, James River b) Deepwater Shoals, James River c) White Shoals, James River d) Hospital Point, Elizabeth River e) Piankatank River oysters relocated for 6 d at Hospital Point, Elizabeth River f) Piankatank River oysters relocated for 6 d at S217, Elizabeth River Collection sites. Levels generally correspond with degree of industrial and urban development and shipping traffic in habitats. Minimum detection limit of PAH's 0.1-0.2 ug/g dry wt. Virginia GC
BODY; OYSTERS; AQUATIC; ENVIRONMENTAL EXPOSURE; VIRGINIA; POLYCYCLIC AROMATIC HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; INDUSTRIES Pittinger, C.A.; Buikema, A.L.; Hornor, S.G.; Young, R.W. 1985 Environmental Toxicology and Chemistry 4:379-387				

Tissue	Cases Exposure Route	Range	Mean	General Information
11571 Body		a) Not detectable-36.2+/-37.1 ug/kg b) Not detectable-43.0+/-74.5 ug/kg c) Not detectable-50.1+/-43.6 ug/kg d) Not detectable-27.5+/-47.6 ug/kg e) Not detectable-21.7+/-37.5 ug/kg f) Not detectable-5.8+/-10.0 ug/kg	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Palmetto Bay Marina, 10 sites, spring b) Summer c) Outdoor Resorts Marina, 8 sites, spring d) Summer e) Fripp Island Marina, 9 sites, spring f) Summer Pooled, 15 adults/sample, collected weekly from mid-intertidal areas of reefs in different sites at each marina. 3/29-4/14/83 and 7/26-8/11/83. For each group, n=3. Ranges of means. Detection limit 8.0 ug/kg. South Carolina, Beaufort County HPLC
AQUATIC; ENVIRONMENTAL EXPOSURE; MOLLUSKS; SOUTH CAROLINA; WATER POLLUTION; FOOD CONTAMINATION; BENZOPYRENE; POLYCYCLIC AROMATIC HYDROCARBONS Marcus, J.M.; Stokes, T.P. 1985 Bulletin of Environmental Contamination and Toxicology 35:835-844				

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11572 Gall bladder		Not detected	Not detected	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS

(next page)

Pyrene
129-00-0
C16-H10
MW 202.24, MP 156 C, BP 404 C

Pike-perch
STIZOSTEDION LUCIOPERCA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11573 Liver		Not given	15 ug/kg Wet wt	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
11574 Muscle		2-3 ug/kg Wet wt	Not given	Collected from 2 sites, 12/1/78, 7/3/79. Detection limit 0.5 ug/kg. Composite samples. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Pyrocatechol, tetrachloro- (8 Cl); 1,2-Benzenediol, 3,4,5,6-tetrachloro- (9 Cl)
1198-55-6
C6-H2-Cl4-O2

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11575 Brain	1	Not applicable	5 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11576 Eggs	4	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11577 Kidney	1	Not applicable	64 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
11578 Liver	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
11579 Muscle	4	0-67 ng/g Wet wt	20.8+/-31.7 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Pyrocatechol, tetrachloro- (8 Cl); 1,2-Benzenediol, 3,4,5,6-tetrachloro- (9 Cl)
1198-55-6
C6-H2-Cl4-O2

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11580 Eggs	7	0-5 ng/g Wet wt	0.71+/-1.89 ng/g Wet wt	Collected 1971-1980. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11581 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 4.7+/-12.2 ppb b) 0.0 ppb c) 6.0+/-12.1 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Detection limit 0.5 ppb. Finland, Baltic Sea GC
11582 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 3.4+/-9.5 ppb b) 0.0 ppb c) 18.5+/-57.5 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Pyrocatechol, tetrachloro- (8 CI); 1,2-Benzenediol, 3,4,5,6-tetrachloro- (9 CI)
1198-55-6
C6-H2-Cl4-O2

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11583 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 9.7+/-17.0 ng/g b) 0.0+/-0.0 ng/g c) 0.0+/-0.0 ng/g d) 3.6+/-6.5 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Tissue	Cases Exposure Route	Range	Mean	General Information
11584 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 9.7+/-17.0 ppb b) 0.0 ppb c) 0.0 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Detection limit 0.5 ppb. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11585 Muscle	45	0-4 ng/g Wet wt	0.133+/-0.661 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Pyrocatechol, tetrachloro- (8 Cl); 1,2-Benzenediol, 3,4,5,6-tetrachloro- (9 Cl)
1198-55-6
C6-H2-Cl4-O2

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11586 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.000 ppb b) 0.250+/-0.897 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC
MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468				

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11587 Eggs	11	Not given	2.2+/-4.4 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland GC
11588 Liver	11	Not given	6.4+/-13.3 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
11589 Muscle	11	Not given	3.6+/-6.5 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Radium, isotope of mass 226
13982-63-3
Ra
MW 226, MP 700 C, BP 1737 C

Blackfly
SIMULIUM sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11590 Body, whole	a) 28 b) 25	a) Not given b) Not given	a) 0.61+/-0.04 Bq/g b) 0.009+/-0.001 Bq/g Wet wt S.E.	a) From tailings system, below 1st tailings lake, affected by effluents from Eldorado Nuclear U mill b) From Fredette Creek, control. Canada, NE of Lake Athabasca Alpha spectrometry
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Caddisfly
NEMOTAULIUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11591 Body, whole	a) 9 b) 5	a) Not given b) Not given	a) 0.85+/-0.15 Bq/g b) 0.13+/-0.11 Bq/g Wet wt S.E.	a) From tailings system, just above BaCl2 treatment affected by effluents from Eldorado Nuclear U mill b) From Fredette Creek, control lake. Canada, NE of Lake Athabasca [210]-Bi activity in precipitate
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Chub, lake
COUESIUS PLUMBEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11592 Body, whole	14	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.66+/-36 Bq/g b) 0.02+/-0.01 Bq/g c) 0.15+/-0.05 Bq/g d) 0.004+/-0.001 Bq/g e) 1.38+/-0.27 Bq/g f) 0.05+/-0.01 Bq/g	a) Tailings Creek, mouth, ash wt, 5 cases b) Wet wt c) beaverlodge Lake, ash wt, 4 cases d) Wet wt e) Ace Creek, mouth, ash wt 5 cases f) Wet wt Uneviscerated animals. All areas receive effluent from Eldorado Nuclear U mill. Canada, NE of Lake Athabasca Alpha spectrometry
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Radium, isotope of mass 226
13982-63-3
Ra
MW 226, MP 700 C, BP 1737 C

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11593 Bone	2 Ingestion	Not given	0.019+/-0.006 pCi/g	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 0.23+/-0.15, 0.29+/-0.39, and 0.05+/-0.03 pCi/g. Canada, British Columbia, Okanagan Highlands Alpha-beta analysis
11594 Liver	2 Ingestion	Not given	0.004 pCi/g	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 0.23+/-0.15, 0.29+/-0.39, and 0.05+/-0.03 pCi/g. Canada, British Columbia, Okanagan Highlands Alpha-beta analysis
11595 Muscle	2 Ingestion	Not given	0.005+/-0.002 pCi/g	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 0.23+/-0.15, 0.29+/-0.39, and 0.05+/-0.03 pCi/g. Canada, British Columbia, Okanagan Highlands Alpha-beta analysis
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703				

Dragonfly
AESCHNA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11596 Body, whole	a) 5 b) 8	a) Not given b) Not given	a) 0.007+/-0.003 Bq/g b) 0.02+/-0.01 Bq/g	a) From tailings system, just below BaCl2 treatment affected by effluents from Eldorado Nuclear U mill b) From Fredette Creek, control lake. Canada, NE of Lake Athabasca [210]-Bi activity in precipitate
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Radium, isotope of mass 226
13982-63-3
Ra
MW 226, MP 700 C, BP 1737 C

Midge
CHIRONOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11597 Body, whole	1	Not applicable	0.35 Bq/g	Larvae from tailings system, mouth of Tailings Creek Canada, NE of Lake Athabasca [210]-Bi activity in precipitate
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Shiner, spottail
NOTROPIS HUDSONIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11598 Body, whole	1	a) Not given b) Not given	a) 4.0 Bq/g b) 0.14 Bq/g	a) Ace Creek, mouth, ash wt b) Wet wt Uneviscerated animals. Creek receives effluent from Eldorado Nuclear U mill. Canada, NE of Lake Athabasca Alpha spectrometry
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Sucker, finescale
CATOSTOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11599 Bone	1 Ingestion	Not given	20 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, algae, plankton, and the mollusc *PISIDIUM* sp. were, respectively, <0.02, 2,150+/-1,130, 20, 340+/-210, 300 pCi/kg (value for water in PCi/L). Canada, British Columbia, Okanagan Highlands Alpha-beta analysis
11600 Muscle	1 Ingestion	Not given	<2 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, algae, plankton, and the mollusc PISIDIUM sp. were, respectively, <0.02, 2,150+/-1,130, 20, 340+/-210, 300 pCi/kg (value for water in PCi/L). Canada, British Columbia, Okanagan Highlands Alpha-beta analysis
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703				

Radium, isotope of mass 226
13982-63-3
Ra
MW 226, MP 700 C, BP 1737 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11601 Body, whole	7	a) Not given b) Not given c) Not given d) Not given	a) 1.70Bq/g b) 0.06 Bq/g c) 0.84+/-0.28 Bq/g d) 0.04+/-0.01 Bq/g	a) Tailings Creek, mouth, ash wt, 1 case b) Wet wt c) Ace Creek, mouth, ash wt, 6 cases d) Wet wt Uneviscerated animals. Both areas receive effluent from Eldorado Nuclear U mill. Canada, NE of Lake Athabasca Alpha spectrometry
11602 Bone	a) 20 b) 18	a) Not given b) Not given	a) 0.08+/-0.01 Bq/g b) 0.002+/-0.003 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11603 Gonads	a) 20 b) 18	a) Not given b) Not given	a) 0.01+/-0.0 Bq/g b) 0.005+/-0.0 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11604 Liver	a) 20 b) 18	a) Not given b) Not given	a) 0.008+/-0.002 Bq/g b) 0.012+/-0.007 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11605 Muscle	a) 20 b) 18	a) Not given b) Not given	a) 0.0011+/-0.0002 Bq/g b) 0.0001+/-0.00002 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11606 Skin	a) 20 b) 18	a) Not given b) Not given	a) 0.024+/-0.002 Bq/g b) 0.007+/-0.001 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11607 Stomach	a) 20 b) 18	a) Not given b) Not given	a) 0.35+/-0.06 Bq/g b) 0.014+/-0.002 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Radium, isotope of mass 226
13982-63-3
Ra
MW 226, MP 700 C, BP 1737 C

Trout

Tissue	Cases Exposure Route	Range	Mean	General Information
11608 Bone	38	a) 600-8000 pCi/kg b) 600-900 pCi/kg c) 400-8000 pCi/kg Geometric Wet wt	a) Not applicable b) Not applicable c) Not applicable	a) From all ponds (numbers 1 & 2, Mill Pond, Deep Pond) b) Ponds 1 & 2 c) Mill Pond, Deep Pond Ranges of means. Settling ponds (1 & 2) with water from open pit U mine. Deep Pond and Mill Pond at U mine/mill complex, one an abandoned pit mine, the other a mill pond. All stocked with brook and rainbow trout. Wyoming Rn emanation; Spectroscopy
11609 Muscle	38	a) 6-30 pCi/kg b) 6 pCi/kg c) 20-30 pCi/kg Geometric Wet wt	a) Not applicable b) Not applicable c) Not applicable	a) From all ponds (numbers 1 & 2, Mill Pond, Deep Pond) b) Ponds 1 & 2 c) Mill Pond, Deep Pond Ranges of means. Settling ponds (1 & 2) with water from open pit U mine. Deep Pond and Mill Pond at U mine/mill complex, one an abandoned pit mine, the other a mill pond. All stocked with brook and rainbow trout. Wyoming Rn emanation; Spectroscopy
11610 Skin	38	a) 100-900 pCi/kg b) 100-150 pCi/kg c) 800-900 pCi/kg Geometric Wet wt	a) Not applicable b) Not applicable c) Not applicable	a) From all ponds (numbers 1 & 2, Mill Pond, Deep Pond) b) Ponds 1 & 2 c) Mill Pond, Deep Pond Ranges of means. Settling ponds (1 & 2) with water from open pit U mine. Deep Pond and Mill Pond at U mine/mill complex, one an abandoned pit mine, the other a mill pond. All stocked with brook and rainbow trout. Wyoming Rn emanation; Spectroscopy
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; RADIUM; WYOMING; WATER POLLUTION; MINING; BONES; MUSCLES; SKIN; RADIONUCLIDES; RADIOISOTOPES; WASTE DISPOSAL Rope, S.K.; Whicker, F.W. 1985 Health Physics 49(2):247-257				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11611 Bone	17 Ingestion	Not given	15+/-6 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, algae, plankton, and the mollusc PISIDIUM sp. were, respectively, <0.02, 2,150+/-1,130, 20, 340+/-210, 300 pCi/kg (value for water in PCi/L). Canada, British Columbia, Okanagan Highlands Alpha-beta analysis

(next page)

Radium, isotope of mass 226
13982-63-3
Ra
MW 226, MP 700 C, BP 1737 C

Trout, rainbow
SALMO GAIRDNERI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11612 Muscle	Ingestion	Not given	<2 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, algae, plankton, and the mollusc PISIDIUM sp. were, respectively, <0.02, 2,150+/-1,130, 20, 340+/-210, 300 pCi/kg (value for water in PCi/L). Canada, British Columbia, Okanagan Highlands Alpha-beta analysis

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION

Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703

Vole, meadow
MICROTUS PENNSYLVANICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11613 Bone	a) 6 b) 5 c) 6 d) 3	a) Not given b) Not given c) Not given d) Not given	a) 6083+/-673 mBq b) 7163+/-1077 mBq c) 1506+/-625 mBq d) 703+/-59 mBq Per skeleton S.E.	a) Winter, fresh body wt 34.70+/-0.84 g b) Spring, wt 35.04+/-0.57 g c) Summer, wt 39.43+/-2.55 g d) Fall, wt 35.24+/-0.38 g Snap-trapped 1982 from "Nordic Main" U tailings area and control site, abandoned field near Massey, Ontario. Control values were <7.4 mBq/skeleton. 226-Ra level in test site vegetation was 211+/-22 mBq/g dry wt compared to <7 mBq/g at control site. Canada, Ontario, Elliot Lake Alpha spectroscopy

VOLES; ENVIRONMENTAL EXPOSURE; RADIOISOTOPES; BONES; CANADA; MINING; ANIMAL POPULATIONS

Cloutier, N.R.; Clulow, F.V.; Lim. T.P.; Dave, N.K. 1986 Health Physics 50(6):775-780

Whitefish, lake
COREGONUS CLUPEAFORMIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11614 Bone	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.03+/-0.01 Bq/g b) 0.0039+/-0.0001 Bq/g c) 0.004+/-0.001 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry

(next page)

Radium, isotope of mass 226
13982-63-3
Ra
MW 226, MP 700 C, BP 1737 C

Whitefish, lake
COREGONUS CLUPEAFORMIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11615 Gonads	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.03+/-0.02 Bq/g b) 0.01+/-0.0 Bq/g c) 0.006+/-0.001 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11616 Liver	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.0055+/-0.0004 Bq/g b) 0.009+/-0.002 Bq/g c) 0.006+/-0.001 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11617 Muscle	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.0002+/-0.0001 Bq/g b) 0.0002+/-0.0001 Bq/g c) 0.0004+/-0.0002 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11618 Skin	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.005+/-0.001 Bq/g b) 0.0006+/-0.0002 Bq/g c) 0.0008+/-0.0001 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry
11619 Stomach	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 1.27+/-0.51 Bq/g b) 0.014+/-0.003 Bq/g c) 0.028+/-0.009 Bq/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca Alpha spectrometry

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Resin acids (No postings in CHEMLINE).

Perch
PERCA FLUVIATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11620 Bile		a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 8.6+/-4.2 ug/ml b) 8.1+/-8.3 ug/ml c) 1.0 ug/ml d) 1.1 ug/ml e) 0.4 ug/ml	a) 0.1 km downstream from sewer of bleached pulp mill effluents, 5 sample pools, 2-5 fish in each b) 1 km, 3 pools, 2-5 fish each, 1 sample below detection limit, <0.02 ug/ml c) 4 km, 2-5 fish, 2 samples below detection limit, <0.032 ug/ml d) 6 km, 3 pools, 2-5 fish, 1 sample below detecion limit, <0.02 ug/ml e) 15 km, 2 pools, 2-5 fish, 1 sample below detection limit, <0.02 ug/ml In 1 sample pool, <0.02 ug/ml (below detection limits). Includes pimaric, isopimaric, abeitic, dehydroabietic acids. Finland, Lake Saimaa
ENVIRONMENTAL EXPOSURE; FISHES; BILE; AQUATIC; WATER POLLUTION; FINLAND; INDUSTRIAL POLLUTION; INDUSTRIES Oikari, O.J. 1986 Bulletin of Environmental Contamination and Toxicology 36:429-436				

Roach
RUTILUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11621 Bile		a) Not applicable b) Not applicable c) Not applicable	a) 3.2+/-1.7 ug/ml b) 1.9 ug/ml c) 3.6 ug/ml	a) 1 km downstream from sewer of bleached pulp mill effluents, 2 sample pools, 2-5 fish in each b) 6 km, 1 pool, 2-5 fish c) 9 km, 1 pool, 2-5 fish Includes pimaric, isopimaric, abeitic, dehydroabietic acids. Finland, Lake Saimaa GC
ENVIRONMENTAL EXPOSURE; FISHES; BILE; AQUATIC; WATER POLLUTION; FINLAND; INDUSTRIAL POLLUTION; INDUSTRIES Oikari, O.J. 1986 Bulletin of Environmental Contamination and Toxicology 36:429-436				

Riboflavin
83-88-5
C17-H20-N4-O6
MW 376.36, MP 278-282 C (decomp)

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11622 Head kidney	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 g) 6 h) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 3.4 ug/g b) 3.2 ug/g c) 4.5 ug/g d) 5.1 ug/g e) 3.7 ug/g f) 3.7 ug/g g) 6.4 ug/g h) 7.2 ug/g Wet wt	a) After 10 wk of 2.7 mg/kg dietary riboflavin, 10 deg C b) 4.7 mg/kg c) 6.7 mg/kg d) 8.7 mg/kg e) 2.7 mg/kg, 15 deg C f) 4.7 mg/kg, 15 deg C g) 6.7 mg/kg, 15 deg C h) 8.7 mg/kg, 15 deg C Flavin levels determined as free riboflavin. Canada Fluorimetry

(next page)

Riboflavin
83-88-5
C17-H20-N4-O6
MW 376.36, MP 278-282 C (decomp)

Trout, rainbow
SALMO GAIRDNERI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11623 Liver	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 g) 6 h) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 8.1 ug/g b) 15.1 ug/g c) 15.4 ug/g d) 15.0 ug/g e) 8.3 ug/g f) 14.6 ug/g g) 14.8 ug/g h) 14.7 ug/g Wet wt	a) After 10 wk of 2.7 mg/kg dietary riboflavin, 10 deg C b) 4.7 mg/kg c) 6.7 mg/kg d) 8.7 mg/kg e) 2.7 mg/kg, 15 deg C f) 4.7 mg/kg, 15 deg C g) 6.7 mg/kg, 15 deg C h) 8.7 mg/kg, 15 deg C Flavin levels determined as free riboflavin. Canada Fluorimetry
11624 Spleen	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 g) 6 h) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 2.5 ug/g b) 2.3 ug/g c) 3.1 ug/g d) 3.3 ug/g e) 1.8 ug/g f) 2.2 ug/g g) 3.2 ug/g h) 3.1 ug/g Wet wt	a) After 10 wk of 2.7 mg/kg dietary riboflavin, 10 deg C b) 4.7 mg/kg c) 6.7 mg/kg d) 8.7 mg/kg e) 2.7 mg/kg, 15 deg C f) 4.7 mg/kg, 15 deg C g) 6.7 mg/kg, 15 deg C h) 8.7 mg/kg, 15 deg C Flavin levels determined as free riboflavin. Canada Fluorimetry
LIVER; SPLEEN; HEAD KIDNEY; FISHES; AQUATIC; JUVENILES; DELIBERATE EXPOSURE; CANADA; VITAMINS; BIOACCUMULATION; DIETS; FOOD ADDITIVES Woodward, B. 1985 Journal of Nutrition 115:78-84				

Rubidium
7440-17-7
Rb
AtW 85.4678, MP 39 C, BP 688 C, VP 10 mm Hg at 390 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11625 Brain	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1.21 ug/g b) 0.94 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

(next page)

Rubidium
7440-17-7
Rb
AtW 85.4678, MP 39 C, BP 688 C, VP 10 mm Hg at 390 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11626 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1.90 ug/g b) 1.71 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
11627 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 3.42 ug/g b) 3.90 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
11628 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1.43 ug/g b) 1.35 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
11629 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 2.84 ug/g b) 2.21 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE

Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295

s-Triazine, 2-chloro-4-(ethylamino)-6-(isopropylamino)- (8 CI); 1,3,5-Triazine-2,4-diamine, 6-chloro-N-ethyl-N'-(1-methylethyl)- (9 CI)
1912-24-9
C8-H14-Cl-N5
MW 216.06, MP 171-174 C, VP 3.0X10(E-7) mm Hg at 20 C

Mosquito
CULEX PIPIENS

Tissue	Cases Exposure Route	Range	Mean	General Information
11630 Body		a) Not given b) Not given c) Not given d) Not given	a) 0.5352 ppm b) 1.6726 ppm c) 0.0017 ppm d) 0.0017 ppm	a) Applied to sorghum leaves, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Co-applied with paraquat (added on d 5), measured extractable [14-C] d) Unextractable [14-C] 1 mg [14-C]-labeled mixed with 4 mg unlabeled apllied to model ecosystem. Measured d 32 in larvae. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11631 Body		a) Not given b) Not given c) Not given d) Not given	a) 0.5917 ppm b) 0.2290 ppm c) 0.0066 ppm d) 0.0066 ppm	a) Applied to sorghum leaves, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Co-applied with paraquat (added on d 5), measured extractable [14-C] d) Unextractable [14-C] 1 mg [14-C]-labeled mixed with 4 mg unlabeled apllied to model ecosystem. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Snail
PHYSA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11632 Body		a) Not given b) Not given c) Not given d) Not given	a) 0.3779 ppm b) 0.0498 ppm c) 0.0022 ppm d) 0.0022 ppm	a) Applied to sorghum leaves, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Co-applied with paraquat (added on d 5), measured extractable [14-C] d) Unextractable [14-C] 1 mg [14-C]-labeled mixed with 4 mg unlabeled apllied to model ecosystem. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Avocet, American
RECURVIROSTRA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
11633 Eggs	a) 1 b) 1	a) Not applicable b) Not applicable	a) 2.7 ppm b) 9.1 ppm Dry wt	a) Sample collected 1983 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Embryonic mortality was high at Kesterson, as were numbers of abnormal chicks or embryos. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC
Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Tissue	Cases Exposure Route	Range	Mean	General Information
11634 Kidney	a) 10 b) 5 c) 5	a) 1.3-2.6 ppm b) 2.2-3.7 ppm c) 2.2-3.0 ppm Wet wt	a) 2.0 ppm b) 2.9 ppm c) 2.5 ppm Wet wt Geometric means	a) Controls, 11/81 b) Dredge-pits, 10/81 c) Dredge-pits, 2/82 Controls were collected at Port Mansfield or Powderhorn Lake. Others from Neuces Bay, Corpus Christi, at two times while impoundment area with sediment from dredging was covered with water and attractive birds. Limit of detection 0.1 ppm. Texas AAS

LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; METAL POISONING; LEAD POISONING; LEAD; ZINC; CADMIUM; MERCURY; SELENIUM; ANIMAL POPULATIONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIAL PLANTS
White, D.H.; Cromartie, E. 1985 Bulletin of Environmental Contamination and Toxicology 34:295-300

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
11635 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.36 ug/g b) 0.31 ug/g c) 0.22 ug/g d) 0.32 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Bayou Petite Prairie c) Spring Bayou d) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin AAS

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
11636 Carcass	a) 7 b) 12 c) 12	a) 4.1-4.2 ppm b) 3.7-3.9 ppm c) 1.0-1.1 ppm Wet wt Ranges of means	a) Not given b) Not given c) Not given	a) Collected summer 1981 from Hyco Reservoir (2000 ha) in NC, cooling reservoir that received ash pond effluent b) Collected 1981 from Catfish Reservoir, NC (445 ha) c) Collected 1981 from Lake Sanchris, IL (876) that received no ash pond effluent Carcass was body excluding gonads. Estimated from graph. North Carolina; Illinois
SELENIUM; FISHES; ENVIRONMENTAL EXPOSURE; BIOMAGNIFICATION; BIOACCUMULATION; CARCASS; OVARIES; TESTES; POWER PLANTS; WATER POLLUTION; FLY ASH; AQUATIC; NORTH CAROLINA; ILLINOIS; GONADS Baumann, P.C.; Gillespie, R.B. 1986 Environmental Toxicology and Chemistry 5:695-701				

Tissue	Cases Exposure Route	Range	Mean	General Information
11637 Muscle	3	0.013-0.020 mg/kg Wet wt	0.016 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362				

Tissue	Cases Exposure Route	Range	Mean	General Information
11638 Ovary	a) 7 b) 12 c) 12	a) Not given b) Not given c) Not given	a) 7.4 ppm b) 4.3 ppm c) 2.0 ppm Wet wt	a) Collected summer 1981 from Hyco Reservoir (2000 ha) in NC, cooling reservoir that received ash pond effluent b) Collected 1981 from Catfish Reservoir, NC (445 ha) c) Collected 1981 from Lake Sanchris, IL (876) that received ash no pond effluent Estimated from graph. North Carolina; Illinois
11639 Testis	a) 7 b) 12 c) 12	a) Not given b) Not given c) Not given	a) 3.2 ppm b) 3.3 ppm c) 1.2 ppm Wet wt	a) Collected summer 1981 from Hyco Reservoir (2000 ha) in NC, cooling reservoir that received ash pond effluent b) Collected 1981 from Catfish Reservoir, NC (445 ha) c) Collected 1981 from Lake Sanchris, IL (876) that received ash no pond effluent Estimated from graph. North Carolina; Illinois
SELENIUM; FISHES; ENVIRONMENTAL EXPOSURE; BIOMAGNIFICATION; BIOACCUMULATION; CARCASS; OVARIES; TESTES; POWER PLANTS; WATER POLLUTION; FLY ASH; AQUATIC; NORTH CAROLINA; ILLINOIS; GONADS Baumann, P.C.; Gillespie, R.B. 1986 Environmental Toxicology and Chemistry 5:695-701				

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
11640 Heart				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico; Japan
11641 Kidney				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico; Japan
11642 Liver				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico; Japan
11643 Lung				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico; Japan
11644 Muscle				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico; Japan
11645 Skin				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico; Japan

ENVIRONMENTAL EXPOSURE; REVIEW; DELIBERATE EXPOSURE; TERRESTRIAL; BATS; CARCASS; BODY; LIVER; ADIPOSE TISSUE; BRAIN; GASTROINTESTINAL SYSTEM; MAMMARY GLANDS; MILK; HEART; LUNGS; KIDNEYS; SKIN; MUSCLES; HAIR; PESTICIDES; PESTICIDE RESIDUES; INSECTICIDES; DDT; DDD; DDE; DIELDRIN; LINDANE; POLYCHLORINATED BIPHENYLS; MIREX; HEPTACHLOR EPOXIDE; OXYCHLORDANE; SELENIUM; MERCURY; LEAD; METALS

Clark, D.R. 1981 U.S. Department of the Interior, Special Scientific Report - Wildlife No. 235, 27 pp.

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C
Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11646 Carcass	a) 12 b) 40 c) 12 d) 12 e) 48	a) 7.2-7.8 ppm b) 7.7-9.1 ppm c) Not given d) 1.1-1.2 ppm e) Not given Wet wt Ranges of means	a) Not given b) Not given c) 3.3 ppm d) Not given e) 0.4 ppm Wet wt	a) Collected summer 1981 from Hyco Reservoir (2000 ha) in NC, cooling reservoir that received ash pond effluent b) Collected 1982-83 from Hyco Reservoir c) Collected 1981 from Catfish Reservoir, NC (445 ha) that received ash pond effluent d) Collected 1981 from Lake Sangchris, IL (876 ha) that received no ash pond effluent e) Collected 1981-83 from Roxboro City Lake, NC, city reservoir not directly exposed to coal combustion by-products Carcass was body excluding gonads. Estimated from graph. North Carolina; Illinois
SELENIUM; FISHES; ENVIRONMENTAL EXPOSURE; BIOMAGNIFICATION; BIOACCUMULATION; CARCASS; OVARIES; TESTES; POWER PLANTS; WATER POLLUTION; FLY ASH; AQUATIC; NORTH CAROLINA; ILLINOIS; GONADS Baumann, P.C.; Gillespie, R.B. 1986 *Environmental Toxicology and Chemistry* 5:695-701				

Tissue	Cases Exposure Route	Range	Mean	General Information
11647 Liver	a) 1 b) 1 c) 1 d) 1 e) 1 f) 1 Ingestion	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 5 ug/g b) 7 ug/g c) 69 ug/g d) 86 ug/g e) 8.466+/-3% ug/g f) 15.079+/-1% ug/g % analytical error Wet wt	a) Wt 3.2 g, Se 1.7 ug/ (0.52 ug/g wt) b) Wt 2.7 g, Se 2.6 ug (0.98 ug/g wt) c) Wt 3.1 g, Se 70.7 ug (22.8 ug/g wt) d) Wt 2.1 g, Se 75.0 ug (35.7 ug/g wt), died d 44 e) Died d 17, wt 2.4 g, Se 27.2 ug (11.3 ng/g wt) f) Died d 35, wt 3.1 g, Se 62.4 ug (20.1 wt) Final levels. Controls, a-b), fed low-Se, lab-cultured meal worms. c-f) fed Se-contaminated mayfly nymphs from Belews Lake near ash settling pond sluice water return. North Carolina, Belews Lake, Lake Norman Exopthalmia, edema, abdominal distension, anorexia, equilibrium loss Erythrocytes poikilocytic with enlarged nuclei & nuclear shadows. Gills swollen. Necrosis & hepatocyte-degeneration. Proliferative glomerulonephritis, fibrosis, tubular vacuolation. NA
FISHES; SELENIUM; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; AQUATIC; MUSCLES; LIVER; WATER POLLUTION; DIETS; FOSSIL FUELED POWER PLANTS; COAL Finley, K.A. 1985 Bulletin of Environmental Contamination and Toxicology 35:816-825				

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11648 Muscle	2	0.019-0.025 mg/kg Wet wt	0.022 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS

Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Tissue	Cases Exposure Route	Range	Mean	General Information
11649 Muscle	a) 1 b) 1 c) 1 d) 1 e) 1 f) 1 g) 1 h) 1 Ingestion	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable	a) 1.972+/-5% ug/g b) 1.813+/-5% ug/g c) 2.057+/-5% ug/g d) 1.811+/-5% ug/g e) 7.503+/-3% ug/g f) 7.936+/-3% ug/g g) 5.097+/-3% ug/g h) 5.438+/-3% ug/g % analytical error Wet wt	a) Fed 44 d, initial wt 3.3 g, total Se 3.2 ug (0.96 ug/g wt) b) Wt 2.3 g, Se 2.7 ug (1.2 ug/g wt) c) Wt 3.2 g, Se 1.7 ug/ (0.52 ug/g wt) d) Wt 2.7 g, Se 2.6 ug (0.98 ug/g wt) e) Wt 3.1 g, Se 70.7 ug (22.8 ug/g wt) f) Wt 2.1 g, Se 75.0 ug (35.7 ug/g wt), died d 44 g) Died d 17, wt 2.4 g, Se 27.2 ug (11.3 ng/g wt) h) Died d 35, wt 3.1 g, Se 62.4 ug (20.1 wt) Final levels. Controls, a-d), fed low-Se, lab-cultured meal worms. e-h) fed Se-contaminated mayfly nymphs from Belews Lake near ash settling pond sluice water return. North Carolina, Belews Lake, Lake Norman Exopthalmia, edema, abdominal distension, anorexia, equilibrium loss Erythrocytes poikilocytic with enlarged nuclei & nuclear shadows. Gills swollen. Necrosis & hepatocyte-degeneration. Proliferative glomerulonephritis, fibrosis, tubular vacuolation. NA

FISHES; SELENIUM; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; AQUATIC; MUSCLES; LIVER; WATER POLLUTION; DIETS; FOSSIL FUELED POWER PLANTS; COAL

Finley, K.A. 1985 Bulletin of Environmental Contamination and Toxicology 35:816-825

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11650 Ovary		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 11.8 ppm b) 9.9 ppm c) 5.4 ppm d) 1.6 ppm e) 0.6 ppm Wet wt	a) Collected summer 1981 from Hyco Reservoir (2000 ha) in NC, cooling reservoir that received ash pond effluent b) Collected 1982-83 from Hyco Reservoir c) Collected 1981 from Catfish Reservoir, NC (445 ha) that received ash pond effluent d) Collected 1981 from Lake Sangchris, IL (876 ha) that received no ash pond effluent e) Collected 1981-83 from Roxboro City Lake, NC, city reservoir not directly exposed to coal combustion by-products Estimated from graph. North Carolina; Illinois
11651 Testis		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 6.6 ppm b) 5 ppm c) 3.7 ppm d) 1.1 ppm e) 0.4 ppm Wet wt	a) Collected summer 1981 from Hyco Reservoir (2000 ha) in NC, cooling reservoir that received ash pond effluent b) Collected 1982-83 from Hyco Reservoir c) Collected 1981 from Catfish Reservoir, NC (445 ha) that received ash pond effluent d) Collected 1981 from Lake Sangchris, IL (876 ha) that received no ash pond effluent e) Collected 1981-83 from Roxboro City Lake, NC, city reservoir not directly exposed to coal combustion by-products Estimated from graph. North Carolina; Illinois

SELENIUM; FISHES; ENVIRONMENTAL EXPOSURE; BIOMAGNIFICATION; BIOACCUMULATION; CARCASS; OVARIES; TESTES; POWER PLANTS; WATER POLLUTION; FLY ASH; AQUATIC; NORTH CAROLINA; ILLINOIS; GONADS

Baumann, P.C.; Gillespie, R.B. 1986 Environmental Toxicology and Chemistry 5:695-701

Bowfin
AMIA CALVA

Tissue	Cases Exposure Route	Range	Mean	General Information
11652 Body, whole		a) Not given b) Not given c) Not given	a) 0.07 ug/g b) 0.35 ug/g c) 0.24 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Bayou Petite Prairie Collected 6/81. Louisiana, Atchafalaya River Basin AAS

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS

Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Buffalo, smallmouth
ICTIOBUS BUBALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11653 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.46 ug/g b) 0.23 ug/g c) 0.11 ug/g d) 0.60 ug/g Wet wt Geometric	a) Composite sample from Lake Fausse Point b) Bayou Petite Prairie c) Spring Bayou d) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin AAS

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Burbot
LOTA LOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11654 Muscle	25	Not given	0.27+/-0.05 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Level of Se of interest because of its antagonistic effect on Hg-poisoning. Norway Spectrofluorimetry

MUSCLES; AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; NORWAY; MERCURY; SELENIUM; BIOACCUMULATION; BIOLOGICAL MONITORING; FOOD CONTAMINATION; WATER POLLUTION
Froslie, A.; Norheim, G.; Sandlund, O.T. 1985 Bulletin of Environmental Contamination and Toxicology 34:572-577

Catfish
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11655 Muscle	2	0.019-0.020 mg/kg Wet wt	0.020 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS
Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11656 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.34 ug/g b) 0.27 ug/g c) 0.43 ug/g d) 0.33 ug/g e) 0.29 ug/g f) 0.34 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Little Pigeon Bayou d) Grand Lake e) Henderson Lake f) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin AAS
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11657 Brain	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.20 ug/g b) 0.23 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
11658 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1.35 ug/g b) 1.55 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
11659 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.042 ug/g b) 1.05 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
11660 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.23 ug/g b) 0.30 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

(next page)

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11661 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.36 ug/g b) 0.39 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Cisco
COREGONUS ALBULA

Tissue	Cases Exposure Route	Range	Mean	General Information
11662 Muscle	20	Not given	0.26+/-0.03 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Level of Se of interest because of its antagonistic effect on Hg-poisoning. Norway Spectrofluorimetry
MUSCLES; AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; NORWAY; MERCURY; SELENIUM; BIOACCUMULATION; BIOLOGICAL MONITORING; FOOD CONTAMINATION; WATER POLLUTION Froslie, A.; Norheim, G.; Sandlund, O.T. 1985 Bulletin of Environmental Contamination and Toxicology 34:572-577				

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11663 Body		a) Not given b) Not given	a) 0.032+/-0.012 ppm b) 0.041+/-0.014 ppm Wet wt	Samples collected from entrance of the Chef Menteur Pass Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS
MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158				

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
11664 Body	9	0.24-0.32 mg/kg Wet wt	0.27 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1980-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY

Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Tissue	Cases Exposure Route	Range	Mean	General Information
11665 Brain	a) 10 b) 3 c) 4 d) 3 e) 4 Number of analyses Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.23 mg/kg b) 0.23 mg/kg c) 0.43 mg/kg d) 0.25 mg/kg e) 0.37 mg/kg Wet wt	a) Controls, 0 time, no Hg or Se supplement b) Methyl-Hg+Se, 2.5 and 5 mg/kg, respectively, /kg wet feed, day 8 c) Day 32 d) Se, 5 mg/kg, day 8 e) Day 32 No significant differences. Norway AAS
11666 Liver	a) 9 b) 3 c) 4 d) 3 e) 4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.18+/-0.06 mg/kg b) 0.46+/-0.03 mg/kg c) 0.86+/-0.10 mg/kg d) 0.57+/-0.06 mg/kg e) 0.58+/-0.06 mg/kg Wet wt	a) Controls, 0 time, no Hg or Se supplement b) Methyl-Hg+Se, 2.5 and 5 mg/kg, respectively, /kg wet feed, day 8 c) Day 32 d) Se, 5 mg/kg, day 8 e) Day 32 Significant difference ($p<0.05$) in uptake in presence of Me-Hg. Norway AAS
11667 Muscle	a) 10 b) 3 c) 4 d) 3 e) 4 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.14+/-0.02 mg/kg b) 0.26+/-0.01 mg/kg c) 0.29+/-0.02 mg/kg d) 0.21+/-0.01 mg/kg e) 0.34+/-0.03 mg/kg Wet wt	a) Controls, 0 time, no Hg or Se supplement b) Methyl-Hg+Se, 2.5 and 5 mg/kg respectively, /kg wet feed, day 8 c) Day 32 d) Se, 5 mg/kg, day 8 e) Day 32 No significant differences. Norway AAS

MUSCLES; LIVER; BRAIN; FISHES; AQUATIC; DELIBERATE EXPOSURE; NORWAY; METAL POISONING; METALS; MERCURY COMPOUNDS; SELENIUM; ANIMAL FEEDS; BIOACCUMULATION

Ringdal, O.; Julshamn, K. 1985 Bulletin of Environmental Contamination and Toxicology 35:335-344

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Coot, American
FULICA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
11668 Eggs	5	34-110 ppm Dry wt	54.0 ppm Dry wt Geometric	Samples collected 1983 from Kesterson National Wildlife Refuge in Merced Co., in which agricultural drainage water is being used for marsh management. Embryonic mortality was high, as was number of abnormal chicks or embryos. In uncontaminated areas, levels typically 3-4 ppm dry wt. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC
Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Tissue	Cases Exposure Route	Range	Mean	General Information
11669 Kidney	a) 20 b) 10 c) 80 d) 40	a) 0.1-1.8 ppm b) 0.6-1.4 ppm c) 0.6-7.5 ppm d) 0.9-4.5 ppm Wet wt	a) 1.1 ppm b) 1.0 ppm c) 2.6 ppm d) 2.1 ppm Wet wt Geometric	a) 1 yr before startup, power plant site b) Control site, same as a) c) Range from 6 mo-2 yr post-startup, power plant site d) Control site, same as c) Values in c), d) Compiled by extractor Significant difference between power plant, control sites at 6 mo post-startup (3.1 and 2.0 ppm, respectively) and 1.5 yr (2.3 and 1.7 ppm). Study was to determine levels at coal-fired power plant ash pond and control site (Port Mansfield). Pre-startup samples in 3, 10, 11/79 and post-startup samples for 2 yr after 10/80. Detection limits, entire study, 0.1-0.2 ppm. Texas Goliad County, Fannin; Texas, Port Mansfield AAS

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; FOSSIL FUELED POWER PLANTS; TEXAS; COPPER; ZINC; NICKEL; CADMIUM; MERCURY; MOLYBDENUM; LEAD; ARSENIC; SELENIUM; KIDNEYS; BONES; LIVER
White, D.H.; King, K.A.; Mitchell, C.A.; Mulhern, B.M. 1986 Bulletin of Environmental Contamination and Toxicology 36:376-383

Tissue	Cases Exposure Route	Range	Mean	General Information
11670 Liver	a) 3 b) 3	a) 4.4-5.6 ppm b) 21-63 ppm Dry wt	a) 5.01 ppm b) 37.2 ppm Dry wt Geometric	a) Collected 4/83-7/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Severe abnormalities or death occurred in embryos and hatchlings at Kesterson. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC
Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11671 Muscle	2	0.016-0.017 mg/kg Wet wt	0.017 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS
Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11672 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.30 ug/g b) 0.33 ug/g c) 0.35 ug/g d) 0.16 ug/g e) 0.23 ug/g f) 0.58 ug/g Wet wt Geometric	a) Composite samples from Lake Fausse Point b) Little Pigeon Bayou c) Henderson Lake d) Bayou Petite Prairie e) Spring Bayou f) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin AAS

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Damselfly
ZYGOPTERA spp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11673 Body	a) 2 b) 3	a) 1.2-1.7 ppm b) 118-218 ppm Dry wt	a) 1.45 ppm b) 175 ppm Dry wt Geometric	a) Composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Nymphs, food organisms of aquatic birds. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC
Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C
Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
11674 Adipose	a) 4 b) 6 c) 3 d) 1	a) 14-42% b) 5.7-21% c) 2.7-14% d) Not applicable	a) 30% b) 10.4% c) 7.8% d) 2.2%	a) Immature animals, 1.6-8.5 yr old b) Mature males, 11.5-36.5 yr old c) Pregnant females, 17.5-25.5 yr old d) Lactating female, 17.5 yr old Collected in 1977-1978 at Taiji, Kii Peninsula, Japan. % of total selenium in whole body. Calculated means. Pacific Ocean AAS
11675 Body, whole	a) 4 b) 6 c) 3 d) 1	a) 0.766-1.12 mg/kg b) 0.730-1.75 mg/kg c) 1.02-1.98 mg/kg d) Not applicable	a) 0.95 mg/kg b) 1.28 mg/kg c) 1.57 mg/kg d) 1.06 mg/kg	a) Immature animals, 1.6-8.5 yr old b) Mature males, 11.5-36.5 yr old c) Pregnant females, 17.5-25.5 yr old d) Lactating female, 17.5 yr old Collected in 1977-1978 at Taiji, Kii Peninsula, Japan. Calculated means. Pacific Ocean AAS
11676 Liver	a) 4 b) 6 c) 3 d) 1	a) 0.9-34% b) 13-32% c) 29-54% d) Not applicable	a) 17% b) 24% c) 38% d) 32%	a) Immature animals, 1.6-8.5 yr old b) Mature males, 11.5-36.5 yr old c) Pregnant females, 17.5-25.5 yr old d) Lactating female, 17.5 yr old Collected in 1977-1978 at Taiji, Kii Peninsula, Japan. % of total selenium in whole body. Calculated means. Pacific Ocean AAS
11677 Muscle	a) 4 b) 6 c) 3 d) 1	a) 23-38% b) 24-57% c) 19-48% d) Not applicable	a) 28% b) 41% c) 38% d) 52%	a) Immature animals, 1.6-8.5 yr old b) Mature males, 11.5-36.5 yr old c) Pregnant females, 17.5-25.5 yr old d) Lactating female, 17.5 yr old Collected in 1977-1978 at Taiji, Kii Peninsula, Japan. % of total selenium in whole body. Calculated means. Pacific Ocean AAS

BODY; MUSCLES; LIVER; ADIPOSE TISSUE; DOLPHINS; AQUATIC; ENVIRONMENTAL EXPOSURE; PACIFIC OCEAN; JUVENILES; ADULTS; MERCURY; METHYLMERCURY; SELENIUM; METALS; BIOACCUMULATION; WATER POLLUTION

Itano, K.; Kawai, S.; Miyazaki, N.; Tatsukawa, R.; Fujiyama, T. 1984 Agricultural and Biological Chemistry 48(5):1117-1121

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Dragonfly
ANISOPTERA spp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11678 Body	a) 2 b) 6	a) 1.2-1.4 ppm b) 66-179 ppm Dry wt	a) 1.29 ppm b) 122 ppm Dry wt Geometric	a) Composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Nymphs, food organisms of aquatic birds. California, San Joaquin Valley AAS
BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63				

Duck

Tissue	Cases Exposure Route	Range	Mean	General Information
11679 Eggs	4	2.2-46 ppm Dry wt	9.90 ppm Dry wt Geometric	Samples collected 1983 from Kesterson National Wildlife Refuge in Merced Co., in which agricultural drainage water is being used for marsh management. Embryonic mortality was high, as was number of abnormal chicks or embryos. In uncontaminated areas, levels typically 3-4 ppm dry wt. Ducks included mallard (ANAS PLATYRHYNCHOS), northern pintail (ANAS ACUTA), cinnamon teal (ANAS CYANOPTERA), and/or gadwall (ANAS STREPERA). California, San Joaquin Valley AAS
11680 Liver	a) 2 b) 2	a) 3.9-4.4 ppm b) 19-43 ppm Dry wt	a) 4.14 ppm b) 28.6 ppm Dry wt Geometric	a) Collected 4/83-7/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Severe abnormalities or death occurred in embryos and hatchlings at Kesterson. Ducks included mallard (ANAS PLATYRHYNCHOS), northern pintail (ANAS ACUTA), cinnamon teal (ANAS CYANOPTERA), and gadwall (ANAS STREPERA). California, San Joaquin Valley AAS
BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63				

Selenium

7782-49-2

Se

AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Duck, mottled

ANAS FULVIGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
11681 Bone	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 12.1+/-1.0 mg/kg b) 10.5+/-0.9 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.001$). Texas, Chambers County ES
11682 Feathers	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 7.7+/-1.6 mg/kg b) 7.6+/-1.3 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES

BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS

Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172

Eel

ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
11683 Body	9	0.17-0.30 mg/kg Wet wt	0.23 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Lake IJssel, 1980-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY

Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Eel, American

ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11684 Muscle	2	0.024-0.034 mg/kg Wet wt	0.029 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS

Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
11685 Body, whole	1830-3050	a) 0.09-3.65 ug/g b) 0.09-2.47 ug/g Wet wt	a) 0.46 ug/g b) 0.47 ug/g Geometric mean Wet wt	a) 1978-79 b) 1980-81 Extensive data given for 60 freshwater species at 112 sites. Composite samples of 3-5 fish. Part of National Contaminant Biomonitoring Program. United States AAS

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; UNITED STATES; COMPARATIVE EVALUATIONS; LEAD; MERCURY; CADMIUM; ARSENIC; SELENIUM; COPPER; ZINC; BIOLOGICAL MONITORING; METALS; WATER POLLUTION

Lowe, T.P.; May, T.W.; Brumbaugh, W.G.; Kane, D.A. 1985 Archives of Environmental Contamination and Toxicology 14:363-388

Gadwall
ANAS STREPERA

Tissue	Cases Exposure Route	Range	Mean	General Information
11686 Bone	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 5.5+/-0.6 mg/kg b) 6.2+/-0.5 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11687 Feathers	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 10.5+/-1.5 mg/kg b) 6.8+/-3.6 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES

BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS

Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Gar, spotted
LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11688 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 0.13 ug/g b) 0.41 ug/g c) 0.27 ug/g d) 0.23 ug/g e) 0.10 ug/g f) 0.11 ug/g g) 0.07 ug/g h) 0.34 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Little Pigeon Bayou d) Grand Lake e) Henderson Lake f) Bayou Petite Prairie g) Spring Bayou h) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin AAS
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Godwit, bar-tailed
LIMOSA LAPPONICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11689 Feathers	a) 6 b) 5 c) 10 d) 19 e) 5 f) 3	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) 5.38+/-3.82 mg/kg c) 7.45+/-1.62 mg/kg d) 9.59+/-1.79 mg/kg e) 5.65+/-1.98 mg/kg f) 7.24+/-0.94 mg/kg	a) Juveniles, 1927-1982, 0-2 wk b) Adults, 1904-1963, 6-7 mo c) Adults, 1979-1982, Schiermonnikoog, 0-2 wk, female d) Male e) Adults, 1979-1982, Vlieland, 0-2 wk, female f) Male Age, year and location of collection, time since completion of feather, and sex. Samples prior to 1979 from Zoological Museum, Amsterdam. Juvenile primaries and adult No. 8 primaries analyzed. Limit of detection 0.81+/-0.15 mg/kg. Dutch Wadden Sea NA
11690 Kidney	10	16-85 mg/kg Dry wt	Not given	Estimated from graph. Dutch Wadden Sea NA
11691 Liver	10	21-105 mg/kg Dry wt	Not given	Estimated from graph. Dutch Wadden Sea NA
FEATHERS; LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; MERCURY; ARSENIC; SELENIUM; ZINC; BIOACCUMULATION; WATER POLLUTION Goede, A.A. 1985 Environmental Pollution (Series A) 37:287-309				

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Grebe, black-necked
PODICEPS NIGRICOLLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11692 Adipose	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 3.03+/-3.62 ug/g b) 3.57+/-1.14 ug/g c) 7.15+/-3.37 ug/g d) 6.94+/-1.05 ug/g e) 0.51+/-0.27 ug/g Dry wt	a) Collected 4/83 b) 9/83 c) 4/84 d) 10/84 e) 4/85 Collected by shooting. Long-term monitoring, birds wintering in moderately polluted environment. Italy, Marano AAS
11693 Brain	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 5.51+/-3.06 ug/g b) 12.79+/-5.49 ug/g c) 12.03+/-2.32 ug/g d) 11.95+/-3.53 ug/g e) 6.35+/-1.03 ug/g Dry wt	a) Collected 4/83 b) 9/83 c) 4/84 d) 10/84 e) 4/85 Collected by shooting. Long-term monitoring, birds wintering in moderately polluted environment. Italy, Marano AAS
11694 Kidney	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 10.75+/-3.85 ug/g b) 11.47+/-2.22 ug/g c) 6.62+/-1.52 ug/g d) 18.21+/-5.27 ug/g e) 11.65+/-2.51 ug/g Dry wt	a) Collected 4/83 b) 9/83 c) 4/84 d) 10/84 e) 4/85 Collected by shooting. Long-term monitoring, birds wintering in moderately polluted environment. Italy, Marano AAS
11695 Liver	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 15.57+/-1.78 ug/g b) 10.49+/-2.27 ug/g c) 16.29+/-0.98 ug/g d) 10.37+/-2.98 ug/g e) 14.10+/-1.75 ug/g Dry wt	a) Collected 4/83 b) 9/83 c) 4/84 d) 10/84 e) 4/85 Collected by shooting. Long-term monitoring, birds wintering in moderately polluted environment. Italy, Marano AAS

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Grebe, black-necked
PODICEPS *NIGRICOLLIS*

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11696 Muscle	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 4.44+/-0.99 ug/g b) 6.73+/-1.76 ug/g c) 3.57+/-0.80 ug/g d) 5.09+/-1.13 ug/g e) 6.37+/-1.06 ug/g Dry wt	a) Collected 4/83 b) 9/83 c) 4/84 d) 10/84 e) 4/85 Collected by shooting. Long-term monitoring, birds wintering in moderately polluted environment. Italy, Marano AAS
11697 Uropygial gland	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 5.24+/-4.25 ug/g b) 8.98+/-4.03 ug/g c) 13.83+/-2.57 ug/g d) 8.91+/-1.42 ug/g e) 5.37+/-2.21 ug/g Dry wt	a) Collected 4/83 b) 9/83 c) 4/84 d) 10/84 e) 4/85 Collected by shooting. Long-term monitoring, birds wintering in moderately polluted environment. Italy, Marano AAS

ENVIRONMENTAL EXPOSURE; AQUATIC; ITALY; ADIPOSE TISSUE; UROPYGIAL GLAND; BRAIN; MUSCLES; KIDNEYS; LIVER; MERCURY; SELENIUM; CADMIUM; LEAD; BIRDS; TRACE ELEMENTS; WATER POLLUTION
Leonzio, C.; Fossi, C.; Focardi, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:219-225

Grebe, eared
PODICEPS CASPICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11698 Eggs	5	72-110 ppm Dry wt	81.4 ppm Dry wt Geometric	Samples collected 1983 from Kesterson National Wildlife Refuge in Merced Co., in which agricultural drainage water is being used for marsh management. Embryonic mortality was high, as was number of abnormal chicks or embryos. In uncontaminated areas, levels typically 3-4 ppm dry wt. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC
Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11699 Body	9	0.18-0.34 mg/kg Wet wt	0.25 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1980-84. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Knot
CALIDRIS CANUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11700 Feathers	a) 22 b) 3 c) 2 d) 1 e) 20 f) 2	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 3.68+/-1.02 mg/kg b) 4.33+/-0.97 mg/kg c) 21.23+/-1.18 mg/kg d) 53.96 mg/kg e) 15.72+/-5.32 mg/kg f) 18.33+/-2.90 mg/kg	a) Juveniles, 1927-1982, 0-2 wk b) Adult Siberian, 1930-1982, 5-7 mo c) Adult, 1930-1969, 1-4 mo d) Adult, 1964, 7 mo e) Adult, 1979-1982, Schiermonnikoog, 0-2 wk f) Adult, 1979-1982, Vlieland, 0-2 wk Age, year and location of collection, and time since completion of feather. Samples prior to 1979 from Zoological Museum, Amsterdam. Juvenile primaries and adult No. 8 primaries analyzed. Dutch Wadden Sea NA
11701 Kidney		Not applicable	48 mg/kg Dry wt	Estimated from graph. Dutch Wadden Sea NA
11702 Liver		Not applicable	42 mg/kg Dry wt	Estimated from graph. Dutch Wadden Sea NA
FEATHERS; LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; MERCURY; ARSENIC; SELENIUM; ZINC; BIOACCUMULATION; WATER POLLUTION Goede, A.A. 1985 Environmental Pollution (Series A) 37:287-309				

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Marlin, black
MAKAIRA INDICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11703 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
11704 Muscle				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE

Eisler, R. 1984 Biological Trace Element Research 6:165-180

Midge
CHIRONOMIDAE spp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11705 Body	a) 3 b) 3	a) 1.5-3.0 ppm b) 71-200 ppm Dry wt	a) 2.09 ppm b) 139 ppm Dry wt Geometric	a) Composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Larve, food organisms of aquatic birds. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC

Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11706 Body	a) 5 b) 12	a) 1.2-1.4 ppm b) 115-283 ppm Dry wt	a) 1.29 ppm b) 170 ppm Dry wt Geometric	a) Composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC

Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Mullet
MUGIL CEPHALICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11707 Muscle				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE

Eisler, R. 1984 Biological Trace Element Research 6:165-180

Murre
URIA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11708 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE

Eisler, R. 1984 Biological Trace Element Research 6:165-180

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11709 Body	9	0.30-0.77 mg/kg Wet wt	0.54 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Eastern Scheldt, 1980-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY

Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Myctophid
DIAPHUS SUBORBITALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11710 Body, whole	10	Not applicable	0.98 mg/kg Wet wt	Collected off Pacific coast of Japan. Pooled sample. Pacific Ocean

BODY; MUSCLES; LIVER; ADIPOSE TISSUE; DOLPHINS; AQUATIC; ENVIRONMENTAL EXPOSURE; PACIFIC OCEAN; JUVENILES; ADULTS; MERCURY; METHYLMERCURY; SELENIUM; METALS; BIOACCUMULATION; WATER POLLUTION

Itano, K.; Kawai, S.; Miyazaki, N.; Tatsukawa, R.; Fujiyama, T. 1984 Agricultural and Biological Chemistry 48(5):1117-1121

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11711 Body		Not given	0.013+/-0.008 ppm Wet wt	Samples collected from entrance of the Inner Harbor Navigation Canal at Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS

MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS

Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Pelican, brown
PELECANUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11712 Feathers	10	Not given	2.36+/-0.742 ppm Dry wt	9 shot in vicinity of Bahia de los Angeles, Gulf of California, on 11/30/80 or 12/1/80. 1 bird found dead at Anacapa Island, CA on 7/28/80. Detection limit=0.1 ppm wet wt. California AAS
11713 Kidney	10	Not given	13.9+/-3.76 ppm Dry wt	9 shot in vicinity of Bahia de los Angeles, Gulf of California, on 11/30/80 or 12/1/80. 1 bird found dead at Anacapa Island, CA on 7/28/80. Detection limit=0.1 ppm wet wt. California AAS
11714 Liver	10	Not given	21.1+/-6.85 ppm Dry wt	9 shot in vicinity of Bahia de los Angeles, Gulf of California, on 11/30/80 or 12/1/80. 1 bird found dead at Anacapa Island, CA on 7/28/80. Detection limit=0.1 ppm wet wt. California AAS

ADIPOSE TISSUE; MUSCLES; BODY; LIVER; KIDNEYS; FEATHERS; BONES; PANCREAS; GONADS; PELICANS; AQUATIC; ENVIRONMENTAL EXPOSURE; CALIFORNIA; METAL POISONING; ARSENIC; CADMIUM; CHROMIUM; COPPER; MERCURY; LEAD; SELENIUM; ZINC; DDE; BIOACCUMULATION

Ohlendorf, H.M.; Anderson, D.; Boellstorff, D.E.; Mulhern, B.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:183-192

Perch
PERCA FLUVIATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11715 *Muscle*	145	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.30+/-0.06 ppm b) 0.23+/-0.03 ppm c) 0.66+/-0.13 ppm d) 0.64+/-0.12 ppm e) 0.35+/-0.03 ppm f) 0.40+/-0.09 ppm g) 0.41+/-0.16 ppm Wet wt	a) Lake Mjosa b) Lake Sillongen c) Ottsjoen d) Hersjoen e) Maxfartjern f) Losna g) Total Collected in 1979-80. Level of Se of interest because of its antagonistic effect on Hg poisoning. Differences among levels in different lakes probably reflect of basic geochemical variations. Norway Spectrofluorimetry

MUSCLES; AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; NORWAY; MERCURY; SELENIUM; BIOACCUMULATION; BIOLOGICAL MONITORING; FOOD CONTAMINATION; WATER POLLUTION

Froslie, A.; Norheim, G.; Sandlund, O.T. 1985 Bulletin of Environmental Contamination and Toxicology 34:572-577

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11716 Body	a) 10 b) 3	a) 0.12-0.25 mg/kg b) 0.25-0.28 mg/kg Wet wt	a) 0.17 mg/kg b) 0.27 mg/kg Wet wt	a) Collected 1980-84, Lake IJssel b) Collected 1982-84, Hollands Diep Edible parts, mixed samples weighing about 20 kg. Collected from Lake IJssel, 1980-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY
Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11717 Muscle	40	Not given	0.21+/-0.03 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Level of Se of interest because of its antagonistic effect on Hg-poisoning. Norway Spectrofluorimetry

MUSCLES; AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; NORWAY; MERCURY; SELENIUM; BIOACCUMULATION; BIOLOGICAL MONITORING; FOOD CONTAMINATION; WATER POLLUTION
Froslie, A.; Norheim, G.; Sandlund, O.T. 1985 Bulletin of Environmental Contamination and Toxicology 34:572-577

Pintail
ANAS ACUTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11718 Bone	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 10.4 mg/kg b) 14.0+/-0.6 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11719 Feathers	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 5.4+/-1.3 mg/kg b) 7.5+/-0.8 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES

BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS
Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Plaice
PLEURONECTES PLATESSA

Tissue	Cases Exposure Route	Range	Mean	General Information
11720 Body	6	0.22-0.40 mg/kg Wet wt	0.29 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1980-81. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 *Science of the Total Environment* 52:25-40				

Razorbill
ALCA TORDA

Tissue	Cases Exposure Route	Range	Mean	General Information
11721 *Liver*				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, *differential uptake, rates, biomagnification*) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Redshank, Icelandic
TRINGA TOTANUS ROBUSTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11722 Feathers	a) 4 b) 18 c) 2 d) 8	a) Not given b) Not given c) Not given d) Not given	a) 3.43+/-1.02 mg/kg b) 12.94+/-4.11 mg/kg c) 8.74+/-1.51 mg/kg d) 13.82+/-3.06 mg/kg	a) Juveniles, 1979-1982, 0-2 wk b) Adults, 1979-1982, Schiermonnikoog, 2-4 wk c) Adults, 1979-1982, Vlieland, 0-2 wk d) Adults, 1979-1982, Vlieland, 2-4 wk Age, year and location of collection, and time since completion of feather. Juvenile primaries and adult No. 8 primaries analyzed. Dutch Wadden Sea NA
11723 Kidney	3	12-16 mg/kg Dry wt	Not given	Estimated from graph. Dutch Wadden Sea NA

(next page)

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Redshank, Icelandic
TRINGA TOTANUS ROBUSTA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11724 Liver	3	10-16 mg/kg Dry wt	Not given	Estimated from graph. Dutch Wadden Sea NA
FEATHERS; LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; MERCURY; ARSENIC; SELENIUM; ZINC; BIOACCUMULATION; WATER POLLUTION Goede, A.A. 1985 Environmental Pollution (Series A) 37:287-309				

Scaup, lesser
AYTHYA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11725 Bone	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 3.3+/-0.4 mg/kg b) 4.9+/-0.5 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.05$). Texas, Chambers County ES
11726 Feathers	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 8.9+/-0.9 mg/kg b) 7.1+/-0.8 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:168-172				

Sea lion, California
ZALOPHUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11727 Kidney				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

(next page)

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Sea lion, California
ZALOPHUS CALIFORNIANUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11728 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11729 Brain				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
11730 Kidney				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
11731 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
11732 Muscle				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Selenium

7782-49-2

Se

AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Shad, gizzard

DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11733 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 0.47 ug/g b) 0.54 ug/g c) 0.50 ug/g d) 0.36 ug/g e) 0.33 ug/g f) 0.39 ug/g g) 0.26 ug/g h) 0.38 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Little Pigeon Bayou d) Grand Lake e) Henderson Lake f) Bayou Petite Prairie g) Spring Bayou h) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin AAS
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Shearwater, Cory's

CALONECTRIS DIOMEDEA

Tissue	Cases Exposure Route	Range	Mean	General Information
11734 Adipose	a) 5 b) 5 c) 5	a) Not given b) Not given c) Not given	a) 9.14+/-1.17 ug/g b) 2.29+/-0.57 ug/g c) 9.78+/-1.34 ug/g Dry wt	a) Majorca Island, Mediterranean, 5/84 b) Linosa Island, Mediterranean, 5/82 c) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
11735 Brain	a) 5 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 20.61+/-10.31 ug/g b) 26.64+/-10.22 ug/g c) 61.21+/-28.41 ug/g d) 36.83+/-22.36 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS

(next page)

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Shearwater, Cory's
CALONECTRIS DIOMEDEA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11736 Eggs	a) 20 b) 10 d) 11 d) 2	a) Not given b) Not given c) Not given d) 3.29-4.32 ug/g Dry wt	a) 3.43+/-0.80 ug/g b) 5.47+/-0.81 ug/g c) 5.89+/-1.43 ug/g d) 3.80 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
11737 Kidney	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 49.81+/-16.29 ug/g b) 89.94+/-11.19 ug/g c) 174.77+/-53.43 ug/g d) 44.93+/-16.92 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
11738 Liver	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 33.64+/-19.62 ug/g b) 81.97+/-16.76 ug/g c) 132.68+/-72.27 ug/g d) 32.99+/-21.29 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
11739 Muscle	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 1.06+/-0.61 ug/g b) 10.80+/-4.52 ug/g c) 4.02+/-2.80 ug/g d) 3.73+/-1.84 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
11740 Uropygial gland	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 46.40+/-20.28 ug/g b) 25.38+/-5.48 ug/g c) 108.12+/-23.52 ug/g d) 95.43+/-35.65 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS

ENVIRONMENTAL EXPOSURE; BIRDS; ATLANTIC OCEAN; MEDITERRANEAN SEA; AQUATIC; EGGS; BRAIN; MUSCLES; KIDNEYS; LIVER; UROPYGIAL GLAND; ADIPOSE TISSUE; MERCURY; CADMIUM; LEAD; ZINC; SELENIUM; HEXACHLOROBENZENE; DDE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; WATER POLLUTION; METALS; PESTICIDES

Renzoni, A.; Focardi, S.; Fossi, C.; Leonzio, C.; Mayol, J. 1986 Environmental Pollution (Series A) 40:17-35

Selenium

7782-49-2

Se

AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Shoveler

ANAS CLYPEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11741 Bone	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 7.2+/-0.3 mg/kg b) 6.3+/-0.7 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11742 Feathers	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 1.1+/-0.3 mg/kg b) 3.0+/-0.7 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.01$). Texas, Chambers County ES

BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS

Hall, S.L.; Fisher, F.M. 1985 *Bulletin of Environmental Contamination and Toxicology* 35:163-172

Shrimp

CRANGON CRANGON

Tissue	Cases Exposure Route	Range	Mean	General Information
11743 Body	9	0.26-0.57 mg/kg Wet wt	0.44 mg/kg Wet wt	Analyzed cooked and unpeeled. Mixed samples weighed about 20 kg. Collected from Western Wadden Sea, 1980-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY

Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 *Science of the Total Environment* 52:25-40

Tissue	Cases Exposure Route	Range	Mean	General Information
11744 Muscle	a) 30 b) 30 c) 30 d) 30	a) Not given b) Not given c) Not given d) Not given	a) 0.94+/-0.23 ug/g b) 1.38+/-0.19 ug/g c) 1.35+/-0.29 ug/g d) 1.18+/-0.18 ug/g Dry wt	a) Aquaculture pond, seawater with 10% mixture of effluent, low density (4.5 shrimp/sq m), 29% survival b) Same effluent mixture, high density (30 shrimp/sq m), 27% survival c) Seawater only, fed Purina Ration, low density (6.0 shrimp/sq m), 50% survival Effluent from Harbor Branch Foundation treatment plant, seawater from Harbor Branch Foundation ship canal. Florida, Fort Pierce AAS

MUSCLES; AQUATIC; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; CRUSTACEANS; CADMIUM; SELENIUM; CHROMIUM; COPPER; LEAD; WATER POLLUTION; FLORIDA

Landau, M.; Pierce, R.H.; Williams, L.D.; Norris, D.R. 1985 *Bulletin of Environmental Contamination and Toxicology* 35:537-545

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Smelt
OSMERUS EPERLANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11745 Muscle	20	Not given	0.23+/-0.03 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Level of Se of interest because of its antagonistic effect on Hg-poisoning. Norway Spectrofluorimetry

MUSCLES; AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; NORWAY; MERCURY; SELENIUM; BIOACCUMULATION; BIOLOGICAL MONITORING; FOOD CONTAMINATION; WATER POLLUTION
Froslie, A.; Norheim, G.; Sandlund, O.T. 1985 Bulletin of Environmental Contamination and Toxicology 34:572-577

Sole
SOLEA SOLEA

Tissue	Cases Exposure Route	Range	Mean	General Information
11746 Body	10	0.06-0.35 mg/kg Wet wt	0.22 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1980-84. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY
Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Squid
TODARODES PACIFICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11747 Body, whole	5	Not given	0.75+/-0.20 mg/kg Wet wt	Collected off Pacific coast of Japan. Pacific Ocean

BODY; MUSCLES; LIVER; ADIPOSE TISSUE; DOLPHINS; AQUATIC; ENVIRONMENTAL EXPOSURE; PACIFIC OCEAN; JUVENILES; ADULTS; MERCURY; METHYLMERCURY; SELENIUM; METALS; BIOACCUMULATION; WATER POLLUTION
Itano, K.; Kawai, S.; Miyazaki, N.; Tatsukawa, R.; Fujiyama, T. 1984 Agricultural and Biological Chemistry 48(5):1117-1121

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Stilt, black-necked
HIMANTOPUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11748 Eggs	5	12-74 ppm Dry wt	32.7 ppm Dry wt Geometric	Samples collected 1983 from Kesterson National Wildlife Refuge in Merced Co., in which agricultural drainage water is being used for marsh management. Embryonic mortality was high, as was number of abnormal chicks or embryos. *In uncontaminated areas, levels typically 3-4 ppm dry wt.* California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC
Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Tissue	Cases Exposure Route	Range	Mean	General Information
11749 Kidney	a) 5 b) 5 c) 5	a) 1.2-2.3 ppm b) 1.3-3.1 ppm c) 1.4-6.2 ppm Wet wt	a) 1.7 ppm b) 2.2 ppm c) 2.8 ppm Wet wt Geometric means	a) Controls, 6/82 b) Dredge-pits, 11/81 c) Dredge-pits, 5/82 Controls gathered at Port Mansfield or Powderhorn Lake. Treatment gathered at Neuces Bay, Corpus Christi, at two times while impoundment area was covered with water and attractive to birds. Impoundment contained sediment from dredging operations. Limit of detection 0.1 ppm. Texas AAS

LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; METAL POISONING; LEAD POISONING; LEAD; ZINC; CADMIUM; MERCURY; SELENIUM; ANIMAL POPULATIONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIAL PLANTS
White, D.H.; Cromartie, E. 1985 Bulletin of Environmental Contamination and Toxicology 34:295-300

Sunfish
LEPOMIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11750 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.42 ug/g b) 0.16 ug/g c) 0.30 ug/g d) 0.25 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Grand Lake c) Bayou Petite Prairie d) Spring Bayou Collected 6/81. Louisiana, Atchafalaya River Basin AAS

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Selenium

7782-49-2

Se

AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Sunfish, redbreast
LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11751 Muscle	2	0.017-0.022 mg/kg Wet wt	0.020 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362				

Sunfish, spotted
LEPOMIS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11752 Muscle	2	0.026-0.036 mg/kg Wet wt	0.031 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362				

Swine
SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11753 Kidney	1 Ingestion	Not applicable	8 ug/g	Died in 7th wk after Pcd rations containing premix with 30-100X Se allowed by FDA. Normal levels considered 0.2-0.4 ug/g. Iowa Hindlimb ataxia progressing to posterior paralysis, coronary band lesions, separation of hooves on front feet. Death (88/300). Clinical toxosis signs appeared 6 wk after feeding began. Ascarid liver scars, bilaterally symmetric gray depressed areas in lumbar intumescence of spinal cord. AAS
LIVER; KIDNEYS; DELIBERATE EXPOSURE; SWINE; TERRESTRIAL; IOWA; NUTRITIONAL DISORDERS; AUTOPSIES; SELENIUM; ACCIDENTAL POISONING; BIOACCUMULATION; ANIMAL FEEDS; DIETS; HEALTH HAZARDS; FOOD ADDITIVES Casteel, S.W.; Osweiler, G.D.; Cook, W.O.; Daniels, G.; Kadlec, R. 1985 Journal of the American Veterinary Medical Association 186(10):1084-1085				

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Swine
SUS *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
11754 Kidney	a) 1 b) 8 c) 1 d) 10 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 2.00 mg/kg b) 3.77+/-0.11 mg/kg c) 3.00 mg/kg d) 2.38+/-0.08 mg/kg Wet wt	a) Healthy, d 5 after delivery (on d 0) of contaminated feed b) Acute cases, d 3-5 c) Chronic case, d 15 d) Survivors, d 35 Sodium selenite added to feed at 300 mg/kg instead of 0.3 mg/kg as prescribed. Feed removed from consumption on d 3. Attack rate of 9.5%, 35.2%, and 1.6% for 20-, 16-, and 12-wk age groups, respectively. Case fatality rate was 89%. Australia, Victoria Depression and anorexia occurred at 24-48 hr, and CNS symptoms included recumbency and ataxia or paralysis. Those most severely affected became dyspneic and cyanosed, with rapid weak pulse and death. Edematous viscera, froth in bronchi, trachea, nose, and mouth, erythematous intestinal *serosa*, pallid liver, blood-flecked ingesta.

INGESTION; ACCIDENTAL POISONING; TERRESTRIAL; SELENIUM; DIETS; FOOD ADDITIVES; ANIMAL FEEDS; CONSUMER EXPOSURE; LIVER; KIDNEYS; MUSCLES; SWINE; AUSTRALIA

Hill, J; Allison, F.; Halpin, C. 1985 Australian Veterinary Journal 62(6):207-208

Tissue	Cases Exposure Route	Range	Mean	General Information
11755 Liver	2 Ingestion	1.5-4.5 ug/g	3.0 ug/g	Died in 7th wk after fed rations containing premix with 30-100X Se allowed by FDA. Normal levels considered 0.2-0.6 ug/g. Iowa Hindlimb ataxia progressing to posterior paralysis, coronary band lesions, separation of hooves on front feet. Death (88/300). Clinical toxosis signs appeared 6 wk after feeding began. Ascarid liver scars, bilaterally symmetric gray depressed areas in lumbar intumescence of spinal cord. AAS

LIVER; KIDNEYS; DELIBERATE EXPOSURE; SWINE; TERRESTRIAL; IOWA; NUTRITIONAL DISORDERS; AUTOPSIES; SELENIUM; ACCIDENTAL POISONING; BIOACCUMULATION; ANIMAL FEEDS; DIETS; HEALTH HAZARDS; FOOD ADDITIVES

Casteel, S.W.; Osweiler, G.D.; Cook, W.O.; Daniels, G.; Kadlec, R. 1985 Journal of the American Veterinary Medical Association 186(10):1084-1085

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Swine
SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11756 Liver	a) 1 b) 3 c) 1 d) 10 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 0.75 mg/kg b) 2.90+/-0.63 mg/kg c) 1.55 mg/kg d) 0.74+/-0.07 mg/kg Wet wt	a) Healthy, d 5 after delivery (on d 0) of contaminated feed b) Acute cases, d 3-5 c) Chronic case, d 15 d) Survivors, d 35 Sodium selenite added to feed at 300 mg/kg instead of 0.3 mg/kg as prescribed. Feed removed from consumption on d 3. Attack rate of 9.5%, 35.2%, and 1.6% for 20-, 16-, and 12-wk age groups, respectively. Case fatality rate was 89%. Australia, Victoria Depression and anorexia occurred at 24-48 hr, and CNS symptoms included recumbency and ataxia or paralysis. Those most severely affected became dyspneic and cyanosed, with rapid weak pulse and death. Edematous viscera, froth in bronchi, trachea, nose, and mouth, erythematous intestinal serosa, pallid liver, blood-flecked ingesta.
11757 Muscle	a) 1 b) 1 c) 10 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 0.36 mg/kg b) 0.48 mg/kg c) 0.22+/-0.01 mg/kg Wet wt	a) Healthy, d 5 after delivery (on d 0) of contaminated feed b) Chronic case, d 15 c) Survivors, d 35 Sodium selenite added to feed at 300 mg/kg instead of 0.3 mg/kg as prescribed. Feed removed from consumption on d 3. Attack rate of 9.5%, 35.2% and 1.6% for 20-, 16-, and 12-wk age groups, respectively. Case fatality rate was 89%. Australia, Victoria Depression and anorexia occurred at 24-48 hr, and CNS symptoms included recumbency and ataxia or paralysis. Those most severely affected became dyspneic and cyanosed, with rapid weak pulse and death. Edematous viscera, froth in bronchi, trachea, nose, and mouth, erythematous intestinal serosa, pallid liver, blood-flecked ingesta.
INGESTION; ACCIDENTAL POISONING; TERRESTRIAL; SELENIUM; DIETS; FOOD ADDITIVES; ANIMAL FEEDS; CONSUMER EXPOSURE; LIVER; KIDNEYS; MUSCLES; SWINE; AUSTRALIA Hill, J; Allison, F.; Halpin, C. 1985 Australian Veterinary Journal 62(6):207-208				

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11758 Bone	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 10.7+/-1.0 mg/kg b) 10.0+/-0.6 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES

(next page)

Selenium
7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Teal, green-winged
ANAS CRECCA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11759 Feathers	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 6.5+/-0.3 mg/kg b) 7.7+/-1.0 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Tissue	Cases Exposure Route	Range	Mean	General Information
11760 Kidney	a) 4 b) 5	a) 0.7-1.1 ppm b) 1.0-1.5 ppm Wet wt	a) 0.8 ppm b) 1.3 ppm Wet wt Geometric means	a) Controls, 11/81 b) Dredge-pits, 1/82 Controls gathered at Port Mansfield or Powderhorn Lake. Treatment gathered at Neuces Bay, Corpus Christi, at time while impoundment area was covered with water and attractive to birds. Impoundment contained sediment from dredging operations. Limit of detection 0.1 ppm. Texas AAS
LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; METAL POISONING; LEAD POISONING; LEAD; ZINC; CADMIUM; MERCURY; SELENIUM; ANIMAL POPULATIONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIAL PLANTS White, D.H.; Cromartie, E. 1985 Bulletin of Environmental Contamination and Toxicology 34:295-300				

Tern, sooty
STERNA FUSCATO

Tissue	Cases Exposure Route	Range	Mean	General Information
11761 Heart				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Selenium

7782-49-2
Se
AtW 78.96, MP 170-217 C, BP 685 C, VP 1 mm Hg at 356 C, 10 mm Hg at 429 C

Trout, brown
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11762 Muscle	18	Not given	0.25+/-0.04 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Level of Se of interest because of its antagonistic effect on Hg-poisoning. Norway Spectrofluorimetry

MUSCLES; AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; NORWAY; MERCURY; SELENIUM; BIOACCUMULATION; BIOLOGICAL MONITORING; FOOD CONTAMINATION; WATER POLLUTION

Froslie, A.; Norheim, G.; Sandlund, O.T. 1985 Bulletin of Environmental Contamination and Toxicology 34:572-577

Water boatman
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11763 Body	a) 5 b) 2	a) 1.1-2.5 ppm b) 20-24 ppm Dry wt	a) 1.91 ppm b) 22.1 ppm Dry wt Geometric	a) Composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC

Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Selenium, isotope of mass 75

14265-71-5
Se

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11764 Body	a) 47 b) 14 c) 13	a) Not given b) Not given c) Not given	a) 43.0+/-2.9 ug/g b) 51.7+/-1.6 ug/g c) 61.1+/-1.1 ug/g Dry wt	a) Larvae fed control (uncontaminated) rotifers until 4 d post-hatch, then Se-contaminated rotifers 7 d, then control diet for 19 d b) Fed control diet until 8 d post-hatch, then Se-contaminated diet for 9 d c) Control diet until d 2, then Se-contaminated diet for 7 d, control diet until d 19 Final larval concentration. Se levels in rotifers (BRACHIONUS CALYCIFLORUS) fed contaminated algae were a) >70 ug/g, b) 68+/-9 ug/g, and c) 55+/-10 ug/g. Final larval dry wt in a) and b) was significantly less than in controls receiving uncontaminated rotifers.

FISHES; SELENIUM; AQUATIC; WATER POLLUTION; BIOACCUMULATION; DELIBERATE EXPOSURE; BODY; LARVAE

Bennett, W.N.; Brooks, A.S.; Boraas, M.E. 1986 Archives of Environmental Contamination and Toxicology 15:513-517

Silica

7631-86-9
O2-Si
MW 60.08, MP 1610 C, BP 2230 C, VP 10 mm Hg at 1732 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11765 Urine				Review. Silica metabolism and formation of urinary silica calculi (urolithiasis) in ruminants were summarized. Silicic acid distribution was measured.
CATTLE; SHEEP; TERRESTRIAL; URINE; SALIVA; BLOOD PLASMA; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; SILICA; AGRICULTURE; ANIMAL FEEDS; REVIEW Bailey, C.B. 1981 Canadian Journal of Animal Science 61(2):219-235				

Silicic acid

1343-98-2
EXACT COMPOSITION UNKNONW OR UNDETERMINED

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11766 Blood, plasma				Review. Silica metabolism and formation of urinary silica calculi (urolithiasis) in ruminants were summarized. Silicic acid distribution was measured.
11767 Saliva				Review. Silica metabolism and formation of urinary silica calculi (urolithiasis) in ruminants were summarized. Silicic acid distribution was measured.
11768 Urine				Review. Silica metabolism and formation of urinary silica calculi (urolithiasis) in ruminants were summarized. Silicic acid distribution was measured.
CATTLE; SHEEP; TERRESTRIAL; URINE; SALIVA; BLOOD PLASMA; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; SILICA; AGRICULTURE; ANIMAL FEEDS; REVIEW Bailey, C.B. 1981 Canadian Journal of Animal Science 61(2):219-235				

Rat
RATTUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11769 Blood, plasma	5 Injection	Not given	0.067+/-0.093 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11770 Bone	5 Injection	Not given	0.256+/-0.043 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11771 Brain	5 Injection	Not given	0.125+/-0.0052 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting

(next page)

Silicic acid
1343-98-2
EXACT COMPOSITION UNKNONW OR UNDETERMINED
Rat
RATTUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11772 Heart	5 Injection	Not given	0.184+/-0.015 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11773 Kidney	5 Injection	Not given	0.848+/-0.096 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11774 Liver	5 Injection	Not given	0.216+/-0.032 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11775 Muscle	5 Injection	Not given	0.174+/-0.114 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11776 Skin	5 Injection	Not given	0.229+/-0.059 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11777 Spleen	5 Injection	Not given	0.231+/-0.02 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting
11778 Testis	5 Injection	Not given	0.293+/-0.107 %/g Wet wt	Percent of injected intracardiac dose, 2X10(E+6) cpm of 31-Si, as silicic acid. Sacrafice after 30 min. Scintillation counting

METABOLISM; RATS; DELIBERATE EXPOSURE; RADIOISOTOPES; KIDNEYS; SKIN; TESTES; BONES; LIVER; HEART; MUSCLES; SPLEEN; BRAIN; BLOOD PLASMA; SILICON; TERRESTRIAL

Berlyne, G.M.; Shainkin-Kestenbaum, R.; Yagil, R.; Alfassi, Z.; Kushelevsky, A.; Etzion, Z. 1986 Biological Trace Element Research 10:159-162

Silver

7440-22-4

Ag

AtW 107.868, MP 960.5 C, BP 2000 C, VP 1 mm Hg at 1310 C, 10 mm Hg at 1540 C

Bird

Tissue	Cases Exposure Route	Range	Mean	General Information
11779 Liver	a) 2 b) 4	a) 0.15-0.27 ppm b) 0.61-1.8 ppm Dry wt	a) 0.201 ppm b) 1.02 ppm Dry wt Geometric	a) Samples collected 1983 from Volta Wildlife Area, which does not receive agricultural drainage water b) Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management. California, San Joaquin Valley AAS
BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63				

Clam

RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11780 Body		a) Not given b) Not given	a) 0.4+/-0.6 ppm b) 2.4+/-2.3 ppm Dry wt	Samples collected from entrance of the Chef Menteur Pass Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS
MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158				

Insect

Tissue	Cases Exposure Route	Range	Mean	General Information
11781 Liver	a) 5 b) 7	a) 0.07-0.22 ppm b) Not detected-0.28 ppm Dry wt	a) 0.152 ppm b) 0.093 ppm Dry wt Geometric	a) Detected in 5/5 composite samples of aquatic insects collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 6/7 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. Detection limit was 0.04 ppm dry wt. California, San Joaquin Valley AAS
BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63				

Silver

7440-22-4
Ag
AtW 107.868, MP 960.5 C, BP 2000 C, VP 1 mm Hg at 1310 C, 10 mm Hg at 1540 C

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11782 Body	a) 2 b) 4	a) 0.04 ppm b) 0.04-0.32 ppm Dry wt	a) 0.04 ppm b) 0.122 ppm Dry wt Geometric	a) Detected in 2/2 composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 4/4 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. California, San Joaquin Valley AAS
BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63				

Mussel
MYTILUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11783 Body	a) 405 b) 630 c) 495 d) 150	a) 0.33+/-0.21-4.35+/-0.15 ug/g b) 0.09+/-0.02-23.00+/-2.50 ug/g c) 0.14+/-0.01-1.84+/-0.23 ug/g d) 0.08+/-0.01-0.10+/-0.03 ug/g Dry wt	a) Not given b) Not given c) Not given d) Not given	a) Transplanted to bay in 1980 b) Transplanted in 1981 c) Transplanted in 1982 d) From intertidal collection site, not transplanted, range over 1980-2 45-65 mm animals transplanted to 16 sites for 4-5.5 mo. Gonads removed before levels measured. California, San Francisco Bay
ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; MUSSELS; BODY; AQUATIC; WATER POLLUTION; METALS; SILVER; ALUMINUM; CADMIUM; CHROMIUM; COPPER; MERCURY; MANGANESE; LEAD; ZINC; CALIFORNIA Smith, D.R.; Stephenson, M.D.; Flegal, A.R. 1986 Environmental Toxicology and Chemistry 5:129-138				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11784 Body		Not given	5.5+/-2.1 ppm Dry wt	Samples collected from entrance of the Inner Harbor Navigation Canal at Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS
MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158				

Sodium

7440-23-5
Na
AtW 22.98977, MP 97.82 C, BP 881.4 C, VP 1 mm Hg at 440 C, 10 mm Hg at 546 C
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11785 Blood, serum	607	<24->35 ppmX10(E+3)	2,974+/-300 ppm	Mineral profile, 1981-1983. Several breeds, age 0->6 yr. ICP-AES

BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION

Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565

Tissue	Cases Exposure Route	Range	Mean	General Information
11786 Brain	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1,102 ug/g b) 1,127 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE

Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295

Tissue	Cases Exposure Route	Range	Mean	General Information
11787 Kidney	90	1.3X10(E+3)-2.4X10(E+3) ppm	1,800+/-281 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES

BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION

Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565

Tissue	Cases Exposure Route	Range	Mean	General Information
11788 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1,470 ug/g b) 1,400 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE

Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295

Sodium

7440-23-5
Na
AtW 22.98977, MP 97.82 C, BP 881.4 C, VP 1 mm Hg at 440 C, 10 mm Hg at 546 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11789 Liver	229	<0.8X10(E+3)->2.8X10(E+3) ppm	1,320+/-497 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES
BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565				

Tissue	Cases Exposure Route	Range	Mean	General Information
11790 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 769 ug/g b) 659 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
11791 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 640 ug/g b) 563 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge *Fort Collins anaerobically digested sludge.* Colorado NA
11792 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 854 ug/g b) 782 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Sodium

7440-23-5
Na
AtW 22.98977, MP 97.82 C, BP 881.4 C, VP 1 mm Hg at 440 C, 10 mm Hg at 546 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11793 Blood, serum	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 144+/-1 mmol/L b) 145+/-1 mmol/L c) 145+/-1 mmol/L d) 1465+/-0.7 mmol/L e) 146+/-0.7 mmol/L f) 142+/-0.7 mmol/L g) 139+/-1 mmol/L h) 137+/-1 mmol/L i) 141+/-1 mmol/L S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (35% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS g) At slaughter, 40 d after weaning, basal diet h) With CSM i) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS
11794 Blood, whole	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 3,378+/-236 ug/ml b) 3,724+/-236 ug/ml c) 4,047+/-236 ug/ml d) 2,689+/-56 ug/ml e) 2,637+/-56 ug/ml f) 2,527+/-56 ug/ml g) 2,907+/-117 ug/ml h) 2,935+/-117 ug/ml i) 2,907+/-117 ug/ml S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (3.5% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS g) At slaughter, 40 d after weaning, basal diet h) With CSM i) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS
11795 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 6+/-0.3 ug/g b) 6+/-0.3 ug/g c) 6+/-0.3 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
11796 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 881+/-58 ug/g b) 980+/-58 ug/g c) 1,194+/-58 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

(next page)

Sodium
7440-23-5
Na
AtW 22.98977, MP 97.82 C, BP 881.4 C, VP 1 mm Hg at 440 C, 10 mm Hg at 546 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11797 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 377+/-25 ug/g b) 225+/-25 ug/g c) 110+/-25 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
11798 Milk	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 372+/-65 ug/ml b) 282+/-65 ug/ml c) 370+/-65 ug/ml d) 262+/-23 ug/ml e) 250+/-23 ug/ml f) 248+/-23 ug/ml S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (3.5% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS
11799 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2.7+/-0.1 ug/g b) 2.6+/-0.1 ug/g c) 2.7+/-0.1 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
11800 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 4+/-0.2 ug/g b) 4+/-0.2 ug/g c) 4+/-0.2 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE

Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424

Sodium

7440-23-5

Na

AtW 22.98977, MP 97.82 C, BP 881.4 C, VP 1 mm Hg at 440 C, 10 mm Hg at 546 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
11801 Body		0.85-2.60% Dry wt	1.65% Dry wt	Collected during 1978-80. Levels higher during post-monsoon (Oct-Jan). Little inter- and intra-specific variations. India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
11802 Body		1.30-2.80% Dry wt	2.24% Dry wt	Collected during 1978-80. Levels higher during post-monsoon (Oct-Jan). Little inter- and intra-specific variations. India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Strontium

7440-24-6

Sr

AtW 87.62, MP 357 C, BP 1366 C, VP 10 mm Hg at 898 C, 1 mm Hg at 740 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
11803 Body		7.5-55 ug/g Dry wt	29.5 ug/g Dry wt	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Strontium

7440-24-6

Sr

AtW 87.62, MP 357 C, BP 1366 C, VP 10 mm Hg at 898 C, 1 mm Hg at 740 C

Sponge (P. foetida)

PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
11804 Body		27-108 ug/g Dry wt	66.0 ug/g Dry wt	Collected during 1978-80 Levels higher during post-monsoon (Oct-Jan). India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Swine

SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11805 Bone	a) 1 b) 1 c) 1 d) 1 e) 2 f) 2 g) 2 h) 2 Injection	a) 0.014-0.015 b) 0.017-0.019 c) 0.013-0.016 d) 0.012-0.013 e) Not applicable f) 0.047-0.071 g) 0.135-0.202 h) 0.105-0.271	a) Not given b) Not given c) Not given d) Not given e) 0.029 f) Not given g) Not given h) Not given	a) Control (non-injected), slaughter at 1 mo b) Control, 3 mo c) Control, 5 mo d) Control, 7 mo e) Dose 2 mg Sr/kg body wt, concentration 10 mg/ml, slaughter at 1 mo f) Dose 10 mg Sr/kg body wt, concentration 61 mg/ml, 3 mo g) Dose 49.3 mg Sr/kg body wt, concentration 80 mg/ml, 5 mo h) Same as g), 7 mo Levels expressed as % of injected dose. Test boars (e-h) had IV injection of SrCl2 4 hr, before slaughter at each age period. Femur, humerus, 3rd metacarpal, 3rd metatarsal, and 3 rd rib ashed for analysis. X-ray fluores
SWINE; DELIBERATE EXPOSURE; TERRESTRIAL; STRONTIUM; BONES; AGE Crenshaw, T.D.; Peo, E.R.; Lewis, A.J.; Knudsen, D.; Moser, B.D. 1982 Nutrition Reports International 26(5):785-791				

Strontium, isotope of mass 89
14158-27-1
Sr
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11806 Bone	a) 4 b) 10	a) -120.0-1300.0 pCi/kg b) -2600.0-3500.0 pCi/kg Wet wt	a) 542.5 pCi/kg b) -269.0 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg Femur Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Chukar
ALECTORIS CHUKAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11807 Bone	1	Not applicable	-890.0+/-3200.0 pCi/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11808 Bone	4	450.0-2100.0 pCi/kg Wet wt	1200.0 pCi/kg Median Wet wt	Hock Collected 3/11-10/28/81. 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL				
Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Strontium, isotope of mass 89
14158-27-1
Sr
Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11809 Bone	1	Not applicable	-3200.0+/-4000.0 pCi/kg Wet wt	Femur 0.1 yr old, 12 kg, sudden death from enterotoxemia 6/2/81. Nevada, Rachel
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11810 Bone	1	Not applicable	<13 pCi/g Ash	Femur, 26% ash Hit by bus 5/14/81. Approx 15-18 yr old, 550 kg. Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Sheep, desert bighorn
OVIS CANADENSIS NELSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11811 Bone	17	-1700.0-1900.0 pCi/kg Wet wt	-870.0 pCi/kg Median Wet wt	Hock 5/11 yr. Killed by hunters 11/15-12/20/81. Nevada. Clark, Esmeralda, and Lincoln Counties.
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Strontium, isotope of mass 90
10098-97-2
Sr
AtW 90, MP 757 C, BP 1366 C, VP 10 mm Hg at 898 C, 1 mm Hg at 740 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11812 Bone	a) 4 b) 10	a) 300.0-550.0 pCi/kg b) 300.0-1400.0 pCi/kg Wet wt	a) 437.5 pCi/kg b) 655.0 pCi/kg Wet wt	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-532 kg Femur Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Chukar
ALECTORIS CHUKAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11813 Bone	1	Not applicable	620.0+/-85.0 pCi/kg Wet wt	Collected 12/18/81 Mature bird, 0.7 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11814 Bone	4	390.0-610.0 pCi/kg Wet wt	485.0 pCi/kg Median Wet wt	Hock Collected 3/11-10/28/81. 1.0-1.5 yr olds, 30-50 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Strontium, isotope of mass 90
10098-97-2
Sr
AtW 90, MP 757 C, BP 1366 C, VP 10 mm Hg at 898 C, 1 mm Hg at 740 C

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11815 Bone	1	Not applicable	940.0+/-220.0 pCi/kg Wet wt	Femur 0.1 yr old, 12 kg, sudden death from enterotoxemia 6/2/81. Nevada, Rachel
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11816 Bone	1	Not applicable	4.7+/-0.63 pCi/g Ash	Femur, 26% ash Hit by bus 5/14/81. Approx 15-18 yr old, 550 kg. Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Sheep, desert bighorn
OVIS CANADENSIS NELSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11817 Bone	17	96.0-2100.0 pCi/kg Wet wt	720.0 pCi/kg Median Wet wt	Hock 5/11 yr. Killed by hunters 11/15-12/20/81. Nevada. Clark, Esmeralda, and Lincoln Counties.
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Styrene, octachloro- (8 CI); Benzene, pentachloro(trichloroethenyl)- (9 CI)
29082-74-4
C8-Cl8
MW 379.71

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11818 Body	10	Not given	2.6+/-14 ng/g	Comparison of laboratory- and field-derived bioconcentration factors (BCFs) for 34 chemicals showed predictions based on lab BCFs useful for chemicals with short half-lives but too low for long half-life chemicals where contaminated food is major source. Lake Ontario, Ganaraska River CC; EC
FISHES; ENVIRONMENTAL EXPOSURE; BIOCONCENTRATION; CHLORINE ORGANIC COMPOUNDS; PESTICIDE RESIDUES; WATER POLLUTION; POLYCHLORINATED BIPHENYLS Oliver, B.G.; Niimi, A.J. 1985 Environmental Science and Technology 19:842-849				

Succinic acid, mercapto-, diethyl ester, S-ester with O,O-dimethyl phosphorodithioate (8 CI); Butanedioic acid, ((dimethoxyphosphinothioyl)thio)-, diethyl ester (9 CI)
121-75-5
C10-H19-O6-P-S2
MW 330.36, MP 2.9 C, BP 156-57 C at 0.7 mm Hg

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11819 Body, whole		Not given	0.04 ug/g Wet wt Geometric	Collected 6/81 from Henderson Lake. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11820 Body, whole		Not given	0.01 ug/g Wet wt Geometric	Collected 6/81 from Henderson Lake. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Sulfanilamide, 3,5-dinitro-N(4),N(4)-dipropyl- (8 CI); Benzenesulfonamide, 4-(dipropylamino)-3,5-dinitro- (9 CI)
19044-88-3
C12-H18-N4-O6-S
Mosquito
CULEX PIPIENS

Tissue	Cases Exposure Route	Range	Mean	General Information
11821 Body		a) Not given b) Not given c) Not given d) Not given	a) 0.5125 ppm b) 1.0155 ppm c) Trace d) 0.7350 ppm	Applied to sand, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Co-applied with paraquat (added on d 5), measured extractable [14-C] d) Unextractable [14-C] 1 mg [14-C]-labeled mixed with 4 mg unlabeled applied to model ecosystem. Measured d 32 in larvae. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11822 Body		a) Not given b) Not given c) Not given d) Not given	a) 0.0329 ppm b) 0.0895 ppm c) 0.0034 ppm d) 0.3350 ppm	Applied to sand, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Co-applied with paraquat (added on d 5), measured extractable [14-C] d) Unextractable [14-C] 1 mg [14-C]-labeled mixed with 4 mg unlabeled applied to model ecosystem. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Snail
PHYSA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11823 Body		a) Not given b) Not given c) Not given d) Not given	a) 0.3975 ppm b) 0.6842 ppm c) 0.0016 ppm d) 0.2955 ppm	Applied to sand, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Co-applied with paraquat (added on d 5), measured extractable [14-C] d) Unextractable [14-C] 1 mg [14-C]-labeled mixed with 4 mg unlabeled applied to model ecosystem. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Sulfone, p-chlorophenyl 2,4,5-*trichlorophenyl* (8 CI); Benzene, 1,2,4-trichloro-5-((4-chlorophenyl)sulfonyl)- (9 CI)
116-29-0
C12-H6-Cl4-O2-S
MW 356.06, MP 146.5-147.5 C, BP 100 C (sublimes)

Fish (Mugil)
MUGIL sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11824 Muscle	a) 27 b) 18	a) Not given b) Not given	a) 467 ng/g b) 456 ng/g Wet wt	a) From dead individuals found in 11/84 on wet area of agricultural region with recent red-mite infestation/treatment b) From collection of live individuals Spain, Castellon Province GC
11825 Viscera	a) 27 b) 18	a) Not given b) Not given	a) 1190 ng/g b) 194 ng/g Wet wt	a) From dead individuals found in 11/84 on wet area of agricultural region with recent red-mite infestation/treatment b) From collection of live individuals Spain, Castellon Province GC
ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; WATER POLLUTION; VISCERA; MUSCLES; SPAIN; MEDITERRANEAN SEA; PESTICIDES; ORGANOPHOSPHATES Barbera, J.C.; Lopez, F.J.; Hernandez, F.; Medina, J.; Pastor, A. 1986 Bulletin of Environmental Contamination and Toxicology 36:211-218				

t-Butylphenyldiphenyl phosphate (No postings in CHEMLINE).

Midge
CHIRONOMUS TENTANS

Tissue	Cases Exposure Route	Range	Mean	General Information
11826 Body, whole		2.72-0.8 ug/g Wet wt	Not given	14 d (peak) and 360 d after addition of approx 50 ug/L C(14)-labelled chemical to artificial ponds containing larvae. Estimated from graph. Canada, Manitoba TLC; GLC
FISHES; AQUATIC; DELIBERATE EXPOSURE; ORGANOPHOSPHATES; WATER POLLUTION Muir, D.C.G.; Lint, D.; Grift, N.P. 1985 Environmental Toxicology and Chemistry 4:663-675				

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11827 Body, whole		a) 10-0 ug/g b) 0-0.8 ug/g Wet wt	a) Not given b) Not given	a) 8 hr (peak) and d 14, hexane-extractable radioactivity, 0.5 ug/g on d 70 b) d 14 and d 70 (peak), unextractable radioactivity After addition of approx 50 ug/L C(14)-labelled chemical to artificial ponds containing fish from wild populations. Estimated from graph. Canada, Manitoba TLC; GLC
FISHES; AQUATIC; DELIBERATE EXPOSURE; ORGANOPHOSPHATES; WATER POLLUTION Muir, D.C.G.; Lint, D.; Grift, N.P. 1985 Environmental Toxicology and Chemistry 4:663-675				

Technetium, isotope of mass 95
14809-56-4
Tc
Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11828 Body	5	2.0+/-3.9-74.8+/-17.6 dpm/g Wet wt	Not applicable	Range of means, days 0 and 16 after addition of ammonium pertechnetate ([95m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. 23.4+/-20.6 dpm on day 37. Animals from group ranging 60-65 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11829 Bone	2	Not given	26.8+/-37.9 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-65 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11830 Gastrointestinal tract	2	Not given	211.8+/-14.9 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-65 mm in length. Not cleared. Tennessee, Oak Ridge Gamma spectrometry
11831 Gills	2	Not given	8.9+/-12.5 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-65 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11832 Muscle	2	Not given	6.3+/-3.0 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-65 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11833 Skin	2	Not given	21.7+/-2.8 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-65 mm in length. Includes scales. Tennessee, Oak Ridge Gamma spectrometry
DELIBERATE EXPOSURE; TECHNETIUM; FISHES; SNAILS; AQUATIC; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES Blaylock, B.G.; Frank, M.L.; DeAngelis, D.L. 1982 Health Physics 42(3):257-266				

Technetium, isotope of mass 95
14809-56-4
Tc
Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11834 Body	5	42.2+/-28.2-420.5+/-82.5 dpm/g Wet wt	Not applicable	Range of means, days 0 and 16 after addition of ammonium pertechnetate ([95m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. 259.5+/-59.7 dpm on day 37. Animals from group ranging 60-130 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11835 Bone	3	Not given	91.4+/-20.0 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-130 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11836 Gastrointestinal tract	3	Not given	1525.5+/-711.5 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-130 mm in length. Not cleared. Tennessee, Oak Ridge Gamma spectrometry
11837 Gills	3	Not given	102.1+/-18.4 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-130 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11838 Muscle	3	Not given	49.2+/-25.1 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-130 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11839 Skin	3	Not given	68.5+/-8.4 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) added to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 60-130 mm in length. Includes scales. Tennessee, Oak Ridge Gamma spectrometry
DELIBERATE EXPOSURE; TECHNETIUM; FISHES; SNAILS; AQUATIC; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES Blaylock, B.G.; Frank, M.L.; DeAngelis, D.L. 1982 Health Physics 42(3):257-266				

Technetium, isotope of mass 95
14809-56-4
Tc
Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11840 Body	5	96.6+/-41.3-1370.2+/-1399.4 dpm Wet wt	Not applicable	Range of means, days 0 and 30 after addition of ammonium pertechnetate ([95m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. 808.6+/-383.6 dpm on day 37. Animals from group ranging 5-45 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11841 Bone	3	Not given	323.0+/-94.3 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 5-45 mm in length. Includes muscle. Tennessee, Oak Ridge Gamma spectrometry
11842 Gastrointestinal tract	3	Not given	4576.4+/-1483.6 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 5-45 mm in length. Not cleared. Tennessee, Oak Ridge Gamma spectrometry
11843 Gills	3	Not given	1595.5+/-185.0 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 5-45 mm in length. Tennessee, Oak Ridge Gamma spectrometry
11844 Muscle	3	Not given	323.0+/-94.3 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 5-45 mm in length. Includes bone. Tennessee, Oak Ridge Gamma spectrometry
11845 Skin	3	Not given	1317.4+/-354.5 dpm/g Wet wt	7 days after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Animals from group ranging 5-45 mm in length. Includes scales. Tennessee, Oak Ridge Gamma spectrometry
DELIBERATE EXPOSURE; TECHNETIUM; FISHES; SNAILS; AQUATIC; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES Blaylock, B.G.; Frank, M.L.; DeAngelis, D.L. 1982 Health Physics 42(3):257-266				

Technetium, isotope of mass 95

14809-56-4
Tc
Snail
HELISOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11846 Body	5	75.5+/-30.5-1340.6+/-368.9 dpm Wet wt	Not applicable	Range of means, days 0 and 10 after addition of ammonium pertechnetate ([95m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. 494.7+/-109.7 dpm on day 37. Tennessee, Oak Ridge Gamma spectrometry
11847 Shell		348.9+/-230.8-298.1+/-160.8 dpm/g Wet wt	Not applicable	Means on day 7 and 22 after addition of ammonium pertechnetate ([95 m]-Tc, 7.06X10(E+8) dpm) to experimental pond containing approx 7.7 cu m of water. Tennessee, Oak Ridge Gamma spectrometry
DELIBERATE EXPOSURE; TECHNETIUM; FISHES; SNAILS; AQUATIC; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES Blaylock, B.G.; Frank, M.L.; DeAngelis, D.L. 1982 Health Physics 42(3):257-266				

Terephthalic acid, tetrachloro-, dimethyl ester (8 CI); 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrachloro-, dimethyl ester (9 CI)

1861-32-1
C10-H6-Cl4-O4
MW 331.99, MP 155-156 C
Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11848 Body		Not applicable	<0.002 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Terephthalic acid, tetrachloro-, dimethyl ester (8 CI); 1,4-Bensenedicarboxylic acid, 2,3,5,6-tetrachloro-, dimethyl ester (9 CI)
1861-32-1
C10-H6-Cl4-O4
MW 331.99, MP 155-156 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11849 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
11850 Body	3-5/site	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 0 mg/kg b) 0 mg/kg c) 0.498 mg/gk d) 0.019 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Fremont Ford State Recreational Area c) At South County Park d) At George J. Hatfield State Recreational Area Organochlorine levels generally increased downstream, irrigated agriculture areas. July, 1981. Detection limit 0.004 mg/kg. California, San Joaquin Valley GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; PESTICIDES; INDUSTRIAL CHEMICALS; CALIFORNIA; CHLORDANE; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; WATER POLLUTION; INSECTICIDES; HERBICIDES; BODY

Saiki, M.K.; Schmitt, C.J. 1986 Archives of Environmental Contamination and Toxicology 15:357-366

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11851 Body		Not applicable	0.01 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Terephthalic acid, tetrachloro-, dimethyl ester (8 CI); 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrachloro-, dimethyl ester (9 CI)
1861-32-1
C10-H6-Cl4-O4
MW 331.99, MP 155-156 C

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11852 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11853 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Terephthalic acid, tetrachloro-, dimethyl ester (8 CI); 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrachloro-, dimethyl ester (9 CI)
1861-32-1
C10-H6-Cl4-O4
MW 331.99, MP 155-156 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11854 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) 0.004 mg/kg b) 0.01 mg/kg c) 0.003 mg/kg d) 0.12 mg/kg e) 0.12 mg/kg f) 0.01 mg/kg g) 0.003 mg/kg h) 0.01 mg/kg i) 0.01 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
11855 Body	3-5/site	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable	a) 0 mg/kg b) 0.004 mg/kg c) 0.707 m/gkg d) 0.024 mg/kg e) 0.004 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Freemont Ford State Recreational Area c) At South County Park d) Salt Slough below Lander Avenue e) At George J. Hatfield State Recreational Area Organochlorine levels generally increased downstream, irrigated agriculture areas. July, 1981. Detection limit 0.004 mg/kg. California, San Joaquin Valley GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; PESTICIDES; INDUSTRIAL CHEMICALS; CALIFORNIA; CHLORDANE; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; WATER POLLUTION; INSECTICIDES; HERBICIDES; BODY Saiki, M.K.; Schmitt, C.J. 1986 Archives of Environmental Contamination and Toxicology 15:357-366				

Terephthalic acid, tetrachloro-, dimethyl ester (8 CI); 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrachloro-, dimethyl ester (9 CI)
1861-32-1
C10-H6-Cl4-O4
MW 331.99, MP 155-156 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11856 Body		Not applicable	0.01 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
11857 Body		0.00-0.40 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=6.1 ug/g. Part of National Pesticides Monitoring Program. United States GLC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11858 Body		a) Not applicable b) Not applicable	a) <0.002 mg/kg b) 0.002 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Terephthalic acid, tetrachloro-, dimethyl ester (8 CI); 1,4-Benzenedicarboxylic acid, 2,3,5,6-tetrachloro-, dimethyl ester (9 CI)
1861-32-1
C10-H6-Cl4-O4
MW 331.99, MP 155-156 C

Sucker, redhorse
MOXOSTOMA *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
11859 Body		Not applicable	0.01 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11860 Body		Not applicable	0.002 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; *INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS;* POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11861 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.002 mg/kg b) 0.005 mg/kg c) <0.002 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Thallium
7440-28-0
Tl
AtW 204.37, MP 303.5 C, BP 1457 C, VP 1 mm Hg at 825 C, 10 mm Hg at 1000 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11862 Body		a) Not given b) Not given	a) <0.01 ppm b) <0.01 ppm Dry wt	Samples collected from entrance of the Chef Menteur Pass Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS
MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS				
Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158				

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11863 Body		Not given	<0.01 ppm Dry wt	Samples collected from entrance of the Inner Harbor Navigation Canal at Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS
MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS				
Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158				

Thiocyanic acid, ion(1-) (8 CI); Thiocyanate (9 CI)
302-04-5
C-N-S
MW 58.08
Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11864 Eggs	a) 6 b) 6 c) 5 d) 6 e) 6 Ingestion	a) 4.2-7.4 ug/g b) 4.2-8.1 ug/g c) 30.1-34.8 ug/g d) 10.7-17.6 ug/g e) 7.9-16.8 ug/g	a) 5.9+/-1.2 ug/g b) 6.0+/-1.6 ug/g c) 31.8+/-3.2 ug/g d) 13.0+/-2.6 ug/g e) 11.9+/-3.2 ug/g	a) Day 1, unexposed b) Day 2, unexposed c) Day 5, exposed to 0.75 ng/ml in drinking water d) Day 6, as in c) e) Day 7, as in c) Content in albumin. Fed as solution of potassium thiocyanate. Colorimetry
DELIBERATE EXPOSURE; CHICKENS; TERRESTRIAL; EGGS; DRINKING WATER; WATER POLLUTION; THIOCYANATES				
Carew, S.N.; Davis, R.H.; Sykes, A.H. 1986 Journal of Toxicology and Environmental Health 17:441-444				

Tin

7440-31-5
Sn
AtW 118.69, MP 231.9 C, BP 2507 C, VP 1 mm Hg at 1610 C, 10 mm Hg at 1890 C

Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11865 Eggs				Review. Levels of methyl tin, dimethyl tin, and trimethyl tin were measured (as Sn) in natural waters and biological materials. Metal-organic interactions of significance in environmental pollution were studied in industrially important chemicals such as Cu, Hg, As, Sn, Pb, Au, and Pt.

REVIEW; EGGS; SHELL; CHICKENS; METALS; TIN; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; TERRESTRIAL
Dissanayake, C.B. 1983 International Journal of Environmental Studies 22:25-42

Clam
ANODONTA ANATINA

Tissue	Cases Exposure Route	Range	Mean	General Information
11866 Foot	6	0.11-0.37 ug/g Wet wt	0.22+/-0.04 ug/g Wet wt	After exposure to dibutyltin dichloride, 15 ug Sn/L, for 7 mo. Netherlands, Leiden Decreased levels of energy substrates. Increased levels of metabolites from anaerobic metabolism. AAS
11867 Gills	6	0.66-1.39 ug/g Wet wt	0.94+/-0.11 ug/g Wet wt	After exposure to dibutyltin dichloride, 15 ug Sn/L, for 7 mo. Netherlands, Leiden Decreased levels of energy substrates. Increased levels of metabolites from anaerobic metabolism. AAS
11868 Kidney	6	17.1-31.1 ug/g Wet wt	25.5+/-2.2 ug/g Wet wt	After exposure to dibutyltin dichloride, 15 ug Sn/L, for 7 mo. Netherlands, Leiden Decreased levels of energy substrates. Increased levels of metabolites from anaerobic metabolism. AAS
11869 Mantle	6	0.08-0.22 ug/g Wet wt	0.13+/-0.02 ug/g Wet wt	After exposure to dibutyltin dichloride, 15 ug Sn/L, for 7 mo. Netherlands, Leiden Decreased levels of energy substrates. Increased levels of metabolites from anaerobic metabolism. AAS
11870 Midgut gland	6	0.40-0.79 ug/g Wet wt	0.60+/-0.07 ug/g Wet wt	After exposure to dibutyltin dichloride, 15 ug Sn/L, for 7 mo. Netherlands, Leiden Decreased levels of energy substrates. Increased levels of metabolites from anaerobic metabolism. AAS

DELIBERATE EXPOSURE; TIN; AQUATIC; CLAMS; MOLLUSKS; GILLS; MANTLE; FOOT; KIDNEYS; MIDGUT GLAND; BIOACCUMULATION; NETHERLANDS; METABOLISM; INDUSTRIAL CHEMICALS
Holwerda, D.A.; Herwig, H.J. 1986 Bulletin of Environmental Contamination and Toxicology 36:756-762

Tin
7440-31-5
Sn
AtW 118.69, MP 231.9 C, BP 2507 C, VP 1 mm Hg at 1610 C, 10 mm Hg at 1890 C

Duck, mottled
ANAS FULVIGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
11871 Bone	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 13.7+/-2.3 mg/kg b) 12.1+/-1.3 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.001$). Texas, Chambers County ES
11872 Feathers	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 10.3+/-2.1 mg/kg b) 10.6+/-1.5 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Gadwall
ANAS STREPERA

Tissue	Cases Exposure Route	Range	Mean	General Information
11873 Bone	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 7.5+/-0.4 mg/kg b) 7.0+/-0.5 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11874 Feathers	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 32.9+/-2.5 mg/kg b) 27.9+/-9.6 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Tin

7440-31-5
Sn
AtW 118.69, MP 231.9 C, BP 2507 C, VP 1 mm Hg at 1610 C, 10 mm Hg at 1890 C

Pintail
ANAS ACUTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11875 Bone	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 11.5 mg/kg b) 16.6+/-1.0 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11876 Feathers	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 7.4+/-1.5 mg/kg b) 9.2+/-1.4 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Scaup, lesser
AYTHYA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11877 Bone	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 5.0+/-0.8 mg/kg b) 6.7+/-0.8 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11878 Feathers	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 12.2+/-1.1 mg/kg b) 10.5+/-1.0 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172				

Tin
7440-31-5
Sn
AtW 118.69, MP 231.9 C, BP 2507 C, VP 1 mm Hg at 1610 C, 10 mm Hg at 1890 C

Shoveler
ANAS CLYPEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11879 Bone	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 11.5+/-0.4 mg/kg b) 10.3+/-0.7 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11880 Feathers	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 1.4+/-0.3 mg/kg b) 6.8+/-3.9 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.05$). Texas, Chambers County ES

BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS

Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and *Toxicology 35:163-172*

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
11881 Body		15-80 ug/g Dry wt	60 ug/g Dry wt	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS

Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
11882 Body		0-0.1 ug/g Dry wt	Not given	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS

Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Tin

7440-31-5
Sn
AtW 118.69, MP 231.9 C, BP 2507 C, VP 1 mm Hg at 1610 C, 10 mm Hg at 1890 C

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11883 Bone	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 14.8+/-1.2 mg/kg b) 17.0+/-0.5 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
11884 Feathers	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 8.8+/-0.5 mg/kg b) 5.3+/-0.8 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.01$). Texas, Chambers County ES

BONES; FEATHERS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; LEAD POISONING; METAL POISONING; METALS; LEAD; ARSENIC; TIN; SELENIUM; MANGANESE; CADMIUM; CHROMIUM; COPPER; NICKEL; BIOACCUMULATION; DIETS

Hall, S.L.; Fisher, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:163-172

Titanium

7440-32-6
Ti
AtW 47.90, MP 1677 C, BP 3277 C, VP 1 mm Hg at 2180 C, 10 mm Hg at 2480 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
11885 Body		75-1550 ug/g Dry wt	586 ug/g Dry wt	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS

Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Titanium

7440-32-6
Ti
AtW 47.90, MP 1677 C, BP 3277 C, VP 1 mm Hg at 2180 C, 10 mm Hg at 2480 C

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
11886 Body		30-500 ug/g Dry wt	200 ug/g Dry wt	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). India, Bombay X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS
Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Toluene (8 CI); Bensene, methyl- (9 CI)

108-88-3
C7-H8
MW 92.13, MP -95 to -94.5 C, BP 110.6 C, VP 36.7 *mm Hg at 30 C*

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
11887 Body		a) Not given b) Not given	a) 18 ppb b) 11 ppb Wet wt	a) Chef Menteur Pass The Rigolets Navigable Channels into Lake Pontchartrain, specimens collected May-June, 1980. Composite samples. Louisiana GC/MS

BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11888 Body		Not given	3.4 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. 5 samples. Louisiana GC/MS

BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION
Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255

Toluene, 2,3,4,5,6-pentachloro- (No postings in CHEMLINE).
C7-H3-Cl5
MW 264.37, MP 224 C, BP 301 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11889 Body	10	Not given	0.7+/-0.8 ng/g	Comparison of laboratory- and field-derived bioconcentration factors (BCFs) for 34 chemicals showed predictions based on lab BCFs useful for chemicals with short half-lives but too low for long half-life chemicals where contaminated food is major source. Lake Ontario, Ganaraska River CC; EC
FISHES; ENVIRONMENTAL EXPOSURE; BIOCONCENTRATION; CHLORINE ORGANIC COMPOUNDS; PESTICIDE RESIDUES; WATER POLLUTION; POLYCHLORINATED BIPHENYLS Oliver, B.G.; Niimi, A.J. 1985 Environmental Science and Technology 19:842-849				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
11890 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.05 ug/g b) 0.18 ug/g c) Not detected d) Not detected Wet wt Geometric	a) 1 composite sample from Lake Verret b) 1 from Bayou Petite Prairie c) 2 from Spring Bayou d) 3 from Raccouri Old River Collected 6/81, 2.3-6.6% lipids, wt 307-431 g. Detection limits <0.01 ug/g. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Blackbird, yellow-headed
XANTHOCEPHALUS XANTHOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11891 Carcass	44	Not detected-0.08 ppm Wet wt	0.02+/-0.02 ppm S.E. Wet wt Arithmetic	Detected in 1 of 5 composite samples. Migratory omnivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.10 ppm wet wt. Utah; Idaho; Oregon GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Buffalo, smallmouth
ICTIOBUS BUBALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11892 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.02 ug/g b) Not detected c) 0.14 ug/g d) Not detected Wet wt *Geometric*	a) 2 composite samples from Lake Fausse Point b) 1 from Bayou Petite Prairie c) 1 from Spring Bayou d) 1 from Raccouri Old River Collected 6/81, 0.5-8.8% lipids, wt 687-1030 g. Detection limits *<0.01* ug/g. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
11893 Body	3-5/site	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable	a) 0 mg/kg b) 0 mg/kg c) 0 mg/kg d) 0 mg/kg e) 41.010 mg/kg f) 0 mg/kg g) 0 mg/kg h) 0 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Firebaugh c) At Freemont Ford State Recreational Area d) Near Crow's Landing e) At South County Park f) Salt Slough below Lander Avenue g) Merced River below CA highway h) At George J. Hatfield State Recreational Area Organochlorine levels generally increased downstream, irrigated agriculture areas. July, 1981. Detection limit 0.040 mg/kg. California, San Joaquin Valley GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; PESTICIDES; INDUSTRIAL CHEMICALS; CALIFORNIA; CHLORDANE; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; WATER POLLUTION; INSECTICIDES; HERBICIDES; BODY Saiki, M.K.; Schmitt, C.J. 1986 Archives of Environmental Contamination and Toxicology 15:357-366				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11894 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.1 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Tissue	Cases Exposure Route	Range	Mean	General Information
11895 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.16 ug/g b) 0.66 ug/g c) 0.69 ug/g d) 0.09 ug/g e) 0.27 ug/g f) Not detected Wet wt Geometric	a) 3 composite samples from Lake Verret b) 1 from lake Fausse Point c) 1 from Little Pigeon Bayou d) 3 from Grand Lake e) 1 from Henderson Lake f) 3 from Raccouri Old River Collected 6/81, 1.3-6.5% lipids, wt 57-317 g. Detection limits <0.01 ug/g. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Tissue	Cases Exposure Route	Range	Mean	General Information
11896 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.1 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11897 Body, whole	25	a) Not applicable b) Not given c) Not applicable d) Not given e) Not applicable f) Not given	a) Not detected b) 0.082 ppm c) Not detected d) 0.704 ppm e) Not detected f) 0.084 ppm	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.10 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11898 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.22 ug/g b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected Wet wt Geometric	a) 3 composite samples from Lake Fausse Point b) 3 from Little Pigeon Bayou c) 2 from Henderson Lake d) 1 from Bayou Petite Prairie e) 2 from Spring Bayou f) 3 from Raccouri Old River Collected 6/81, 1.3-4.1% lipids, wt 92-251 g. Detection limits <0.01 ug/g. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
11899 Carcass	16	Not detected-0.12 ppm Wet wt	0.04+/-0.04 ppm S.E. Wet wt Arithmetic	Detected in 1 of 3 composite samples. Nonmigratory granivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.10 ppm wet wt. New Mexico; Idaho; Oregon GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11900 Brain	a) 2 b) 1 c) 3	a) 0.35-0.36 ppm b) Not applicable c) Not detected	a) 0.36 ppm b) 0.28 ppm c) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 5/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Means in a) calculated by extractor. Detection limit 0.1 ppm. GLC
11901 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected-0.16 ppm b) Not detected c) Not applicable d) Not detected	a) Not applicable b) Not detected c) 0.11 ppm d) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Toxaphene

8001-35-2

EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Egret, great

CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11902 Brain	a) 4 b) 1	a) Not detected b) Not applicable	a) Not detected b) 0.54 ppm Wet wt	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
11908 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable	a) Not detectec b) Not detected c) Not detected d) Not detected e) 0.58 ppm Wet wt	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Egret, snowy

EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
11904 Brain	1	Not detected	Not detected	Dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
11905 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Toxaphene

8001-35-2

EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
11906 Body		0.0-21.0 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=207.9 ug/g. Part of National Pesticides Monitoring Program. United States GLC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260				

Flicker, Northern

COLAPTES AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11907 Carcass	14	Not detected-0.06 ppm Wet wt	0.03+/-0.03 ppm S.E. Wet wt Arithmetic	Detected in 1 of 2 composite samples. Nonmigratory omnivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.10 ppm wet wt. New Mexico GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Frog
RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11908 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.10 ppm. Louisiana GC-EC
11909 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.10 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Gar, spotted
LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11910 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 0.63 ug/g b) 0.40 ug/g c) 0.80 ug/g d) 0.11 ug/g e) 0.48 ug/g f) Not detected g) 0.05 ug/g h) Not detected Wet wt Geometric	a) 1 composite sample from Lake Verret b) 1 from Lake Fausse Point c) 3 from Little Pigeon Bayou d) 1 from Grand Lake e) 2 from Henderson Lake f) 1 from Bayou Petite Prairie g) 1 from Spring Bayou h) 1 from Raccouri Old River Collected 6/81, 1.6-12.9% lipids, wt 303-860 g. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
11911 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected-0.54 ppm c) Not detected Wet wt	a) Not detected b) Not applicable c) Not detected	a) Wisconsin, adult, 8/78 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
11912 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected g) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected g) Not detected	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11913 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-0.17 ppm b) Not detected-0.22 ppm c) Not detected-0.71 ppm d) Not detected e) Not detected f) Not detected g) Not detected-0.82 ppm h) Not detected-0.78 ppm Wet wt	a) Not applicable b) Not applicable c) Not applicable d) Not detected e) Not detected f) Not detected g) Not applicable h) Not applicable	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-5/79 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
11914 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected g) Not detected-0.50 ppm h) Not applicable Wet wt	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected g) 0.28 ppm Wet wt	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Toxaphene

8001-35-2

EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Heron, green-backed

BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11915 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, little blue

FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
11916 Carcass	a) 6 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, Louisiana

HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
11917 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
11918 Body, whole	10	a) Not applicable b) Not given c) Not applicable d) Not applicable e) Not given f) Not applicable	a) Not detected b) 0.247 ppm c) Not detected d) Not detected e) 0.082 ppm f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.10 ppm. Means b) and e) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Tissue	Cases Exposure Route	Range	Mean	General Information
11919 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Jay, Steller's
CYANOCITTA STELLERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11920 Carcass	26	Not detected-0.11 ppm Wet wt	0.03+/-0.03 ppm S.E. Wet wt Arithmetic	Detected in 1 of 4 composite samples. Nonmigratory omnivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.10 ppm wet wt. New Mexico; Colorado GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-698

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11921 Carcass	a) 19 b) 66	a) 0.35-2.48 ppm b) 0.31-0.37 ppm Wet wt	a) 0.21+/-0.13 ppm b) 0.10+/-0.06 ppm S.E. Wet wt Arithmetic	a) Detected in 4/19 individuals b) Detected in 2/7 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.10 ppm wet wt. Utah; Oregon; Montana; Colorado GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Kingbird, Western
TYRANNUS VERTICALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11922 Carcass	10	Not applicable	0.11 ppm Wet wt	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 1 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.10 ppm wet wt. New Mexico GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
11923 Ovary		a) Not given b) Not given c) Not given d) Not given	a) 0.08 ug/g b) 0.11 ug/g c) 0.32 ug/g d) 0.18 ug/g	a) Lake Erie b) Wauseon Reservoir c) New London Reservoir d) Findlay Reservoir 1978. Ohio Bilateral asymmetry
BODY; OVARIES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; OHIO; WISCONSIN; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; POPULATION EXPOSURE; BIOINDICATORS Carline, R.F.; Lawal, M.V. 1985 Environmental Toxicology and Chemistry 4:543-547				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Raccoon
PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
11924 Muscle	10	a) Not applicable b) Not given c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) 0.095 ppm c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.10 ppm. Mean b) exceeded by S.E. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Shad
DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11925 Body, whole	25	a) Not applicable b) Not given c) Not applicable d) Not applicable e) Not applicable f) Not given	a) Not detected b) 0.218 ppm c) Not detected d) Not detected e) Not detected f) 0.456 ppm	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.1 ppm. Mean b) exceeded by S.E. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
11926 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) Not detected b) 0.05 ug/g c) 0.09 ug/g d) Not detected e) 0.06 ug/g f) Not detected g) Not detected h) 0.06 ug/g Wet wt Geometric	a) 3 composite samples from Lake Verret b) 3 from Lake Fausse Point c) 1 from Little Pigeon Bayou d) 3 from Grand Lake e) 3 from Henderson Lake f) 3 from Bayou Petite Prairie g) 3 from Spring Bayou h) 3 from Raccouri Old River Collected 6/81, 1.4-5.0% lipids, wt 60-227 g. Detection limits <0.01 ug/g. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Snake, water
NATRIX sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11927 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) Not detected	a) Lake Verret b) Plaquemine-Brule Bayou c) East Franklin Site of collection in 1979. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.10 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; MONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Maesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Swallow, cliff
HIRUNDO PYRRHONOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11928 Carcass	133	Not detected-0.08 ppm Wet wt	0.02+/-0.02 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in all 1 of 14 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.20 ppm wet wt. New Mexico; Colorado; Utah; Wyoming; Idaho; Oregon; Montana GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Toxaphene
8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
11929 Carcass	a) 23 b) 14	a) 0.12-2.51 ppm b) Not detected-0.91 ppm Wet wt	a) 0.26+/-0.13 ppm b) 0.45+/-0.45 ppm S.E. Wet wt Arithmetic	a) Detected in 8/23 individuals b) Detected in 1/2 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.10 ppm wet wt. Colorado; Oregon; Montana GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES				
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
11930 Carcass	48	0.25-0.67 ppm Wet wt	0.31+/-0.11 ppm S.E. Wet wt Arithmetic	Detected in 4/6 composite samples. Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.16 ppm wet wt. New Mexico: Colorado; Idaho; Oregon GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES				
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
11931 Adipose	4	1.6-10.7 ug/g Wet wt	4.3+/-3.7 ug/g S.E. Wet wt	Estimated totals derived on the basis of equal electron capture response factors for all components. Component levels measured in "belly-flap" region of fish collected 8/6/82. Michigan, Muskegon, Lake Michigan GC/MS; TLC
MEASUREMENT METHODS; FISHES; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; AQUATIC; MICHIGAN				
Gooch, J.W.; Matsumura, F. 1985 Journal of Agricultural and Food Chemistry 33:844-848				

Toxaphene

8001-35-2
EXACT COMPOSITION UNKNOWN OR UNDETERMINED

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
11932 Fillets	3	0.794-1.178 ppm	0.949+/-0.1150 ppm	Included skin. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan Area of peaks
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9				

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
11933 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 0%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

Tri(m-cresyl) phosphate (No postings in CHEMLINE).

Midge
CHIRONOMUS TENTANS

Tissue	Cases Exposure Route	Range	Mean	General Information
11934 Body, whole		6.7-0.8 ug/g Wet wt	Not given	70 d (peak) and 360 d after addition of approx 50 ug/L C(14)-labelled chemical to artificial ponds containing larvae. Canada, Manitoba TLC; GLC
FISHES; AQUATIC; DELIBERATE EXPOSURE; ORGANOPHOSPHATES; WATER POLLUTION Muir, D.C.G.; Lint, D.; Grift, N.P. 1985 Environmental Toxicology and Chemistry 4:663-675				

Tri(m-cresyl) phosphate (No postings in CHEMLINE).

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
11935 Body, whole		a) 7.3-0.3 ug/g b) 8.0-0.6 ug/g Wet wt	a) Not given b) Not given	a) 8 hr (peak) and 28 d, hexane-extractable radioactivity b) 4 d (peak) and 14 d, unextractable radioactivity, 0.9 ug/g on d 28 After addition of approx 50 ug/L C(14)-labelled chemical to 4 artificial ponds containing fish from wild population. Estimated from graph. Cases: 3 fish/pond/sample, 9 samples. Canada, Manitoba TLC; GLC
FISHES; AQUATIC; DELIBERATE EXPOSURE; ORGANOPHOSPHATES; WATER POLLUTION Muir, D.C.G.; Lint, D.; Grift, N.P. 1985 Environmental Toxicology and Chemistry 4:663-675				

Trichloroethyl phosphate (No postings in CHEMLINE).

Killifish
ORYZIAS LATIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
11936 Body		Not applicable	3 ppm	Constant maximum level reached within 1 d was maintained throughout 11 d exposure to 2.1-2.4 ppm in continuous flow system. Removal to clean water without TCEP resulted in rapid elimination. Estimated from graph. GC
BIOACCUMULATION; FISHES; AQUATIC; DELIBERATE EXPOSURE; BODY; WATER POLLUTION Sasaki, K.; Suzuki, T.; Takeda, M.; Uchiyama, M. 1982 Bulletin of Environmental Contamination and Toxicology 28:752-759				

Trichothec-9-ene-3alpha,4beta,15-triol, 12,13-epoxy-, 4,15-diacetate (8 CI); Trichothec-9-ene-3,4,15-triol, 12,13-epoxy-, 4,15-diacetate, (3alpha,4beta)- (9 CI)

2270-40-8
C19-H26-O7
Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11937 Muscle		Not detected	Not detected	Collected from 2 sites, 11/7, 10/20, 12/1/78. Detection limit 0.5 ug/kg. Composite samples. Measured in a mixture with two other, also undetected, PAH's. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Trichothec-9-ene-3alpha,4beta,8alpha,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-isovalerate (8 CI); Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3alpha,4beta,8alpha)- (9 CI)
21259-20-1
C24-H34-O9
MW 466.58, MP 151-152 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11938 Adipose	1 Ingestion	Not applicable	4.7 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11939 Bile	1 Ingestion	Not applicable	27.2 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11940 Blood	1 Ingestion	Not applicable	13.3 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11941 Blood, plasma	1 Ingestion	a) Not applicable b) Not applicable	a) 64 ppb b) 10.2 ppb	a) Maximum, in T-2 toxin equivalent, at 8 hr after dosing with labeled compound b) At sacrifice, 3 d after dosing Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11942 Heart	1 Ingestion	Not applicable	10.1 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11943 Kidney	1 Ingestion	Not applicable	13.9 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11944 Liver	1 Ingestion	Not applicable	18.5 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC

(next page)

Trichothec-9-ene-3alpha,4beta,8alpha,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-isovalerate (8 CI); Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3alpha,4beta,8alpha)- (9 CI)
21259-20-1
C24-H34-O9
MW 466.58, MP 151-152 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11945 Mammary gland	1 Ingestion	Not applicable	11.3 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11946 Milk	1 Ingestion	a) Not applicable b) Not applicable	a) 37 ppb b) 11.4 ppb	a) Maximum, in T-2 toxin equivalent, at 16 hr after dosing with labeled compound b) At sacrifice, 3 d after dosing Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11947 Muscle	1 Ingestion	Not applicable	8.8 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11948 Ovary	1 Ingestion	Not applicable	10.7 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11949 Spleen	1 Ingestion	Not applicable	9.4 ppb	T-2 toxin equivalent at sacrifice 3 d after labeled toxin. Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC
11950 Urine	1 Ingestion	a) Not applicable b) Not applicable	a) 5.5 ppm b) 212.0 ppb	a) Maximum, in T-2 toxin equivalent, at 16 hr after dosing with labeled compound b) At sacrifice, 3 d after dosing Tritium-labeled T-2 toxin (specific activity 190.1 mCi/mmol) administered orally d 4 (equivalent to 0.171 mCi/kg body wt) following 3 d of T-2 toxin at 180 mg/d by gelatin capsule to a 375-kg lactating Jersey cow. Scintillation counting; Radio-TLC

CATTLE; DELIBERATE EXPOSURE; METABOLISM; BILE; INGESTION; LIVER; KIDNEYS; SPLEEN; HEART; MAMMARY GLANDS; OVARIES; MUSCLES; ADIPOSE TISSUE; BLOOD; BLOOD PLASMA; URINE; MILK; MINNESOTA; AGRICULTURE

Yoshizawa, T.; Mirocha, C.J.; Behrens, J.C.; Swanson, S.P. 1981 Food and Cosmetics Toxicology 19:31-39

Trichothec-9-ene-3alpha,4beta,8alpha,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-isovalerate (8 CI); Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3alpha,4beta,8alpha)- (9 CI)
21259-20-1
C24-H34-O9
MW 466.58, MP 151-152 C

Swine
SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11951 Blood, plasma	2 Injection	a) 870-40 ng/ml b) 590-30 ng/ml	a) Not given b) Not given	a) Swine 1 b) Swine 2 Total T-2 toxin and metabolite residues at 10 min and 240 min after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. HPLC; Scintillation counting
11952 Bone marrow	2 Injection	18+/-1-25+/-2 ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11953 Brain	2 Injection	8+/-1-13+/-1 ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11954 Heart	2 Injection	23+/-1-26+/-1 ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11955 Kidney	2 Injection	74+/-2-68+/-4 ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11956 Liver	2 Injection	107+/-4-39+/-3 ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11957 Lung	2 Injection	21+/-1-24+/-2 ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11958 Lymph node	2 Injection	33+/-1-46+/-2 ng/g S.E.	Not given	Total metabolites in mesenteric lymph nodes of swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11959 Muscle	2 Injection	18+/-1-19+/-ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. Total muscle mass estimated at 25% of body wt. HPLC; Scintillation counting

(next page)

Trichothec-9-ene-3alpha,4beta,8alpha,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-isovalerate (8 CI); Trichothec-9-ene-3,4,8,15-tetrol, 12,13-epoxy-, 4,15-diacetate 8-(3-methylbutanoate), (3alpha,4beta,8alpha)- (9 CI)
21259-20-1
C24-H34-O9
MW 466.58, MP 151-152 C

Swine
SUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11960 Pancreas	1 Injection	Not given	159+/-5 ng/g S.E.	Total metabolites at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting
11961 Spleen	2 Injection	29+/-1-42+/-1 ng/g S.E.	Not given	Total metabolite residues in swine 1 and 2 at sacrifice, 4 hr after IV dose of 1.0 mCi of tritium-labeled compound at 0.15 mg/kg body wt. Levels of 21 metabolites in tissues also given. HPLC; Scintillation counting

SWINE; TERRESTRIAL; DELIBERATE EXPOSURE; BLOOD PLASMA; LIVER; KIDNEYS; SPLEEN; LYMPH NODES; MUSCLES; LUNGS; HEART; BRAIN; PANCREAS; BONE MARROW; METABOLITES; METABOLISM; ABSORPTION

Corley, R.A.; Swanson, S.P.; Gullo, G.J.; Johnson, L.; Beasley, V.R.; Buck, W.B. 1986 Journal of Agricultural and Food Chemistry 34(5):868-875

Trimethylcyclohexane (No postings in CHEMLINE).

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
11962 Body		Not given	0.9 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS

BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION

Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255

Triphenylene
217-59-4
C18-H12
MW 228.28, MP 199 C, BP 425 C

Burbot
LOTA LOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
11963 Gall bladder		Not detected	Not detected	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Measured in a mixture with two other, also undetected, PAH's. Finland, Archipelago Sea GLC/MS
11964 Liver		Not given	180 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Measured in a mixture with benzo(a)anthracene and chrysene. Finland, Archipelago Sea GLC/MS
11965 Muscle		Not given	3 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Measured in a mixture with benzo(a)anthracene and chrysene. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11966 Muscle		Not detected	Not detected	Collected from 2 sites, 11/7, 10/ 19, 12/1/78. Detection limit 0.5 ug/kg. Composite samples. Measured in a mixture with two other, also undetected, PAH's. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Triphenylene

217-59-4
C18-H12
MW 228.28, MP 199 C, BP 425 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11967 Body		a) Not detected b) Not detected-15 ug/kg Wet wt	a) Not given b) Not given	a) Collections from 4 sites, 10/9 and 10/12/78 b) From 3 sites, 5/9, 5/23, 6/5/79 Detection limit 0.5 ug/kg. Composite samples of at least 10 individuals analyzed. Mixture with benzo(a)anthracene and chrysene. Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
11968 Gall bladder		Not detected	Not detected	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Measured in a mixture with two other, also undetected, PAH's. Finland, Archipelago Sea GLC/MS
11969 Liver		Not detected	Not detected	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Measured in a mixture with two other, also undetected, PAH's. Finland, Archipelago Sea GLC/MS
11970 Muscle		Not detected-15 ug/kg Wet wt	Not given	Collected from 2 sites, 12/1/78, 7/3/79. Detection limit 0.5 ug/kg. Composite samples. Measured in a mixture with benzo(a)anthracene and chrysene Finland, Archipelago Sea GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; MUSSELS; FISHES; MUSCLES; LIVER; GALL BLADDER; BODY; MOLLUSKS; POLYCYCLIC AROMATIC HYDROCARBONS; FINLAND; WATER POLLUTION Rainio, K.; Linko, R.R.; Ruotsila, L. 1986 Bulletin of Environmental Contamination and Toxicology 37:337-343				

Tritium

10028-17-8
T2
MW 6.032, MP -254.54 C at 162 mm Hg, BP -248.12 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11971 Blood	a) 4 b) 10	a) <310 pCi/L b) <450-1900 pCi/L	a) <310 pCi/L b) 530 pCi/L Medians	a) Sampled 5/81, 0.25-7.0 yr olds, 90-570 kg b) 10/81, 0.5-14.0 yr olds, 148-552 kg Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Chukar
ALECTORIS CHUKAR

Tissue	Cases Exposure Route	Range	Mean	General Information
11972 Viscera	1	Not applicable	760.0+/-300.0 pCi/L	Tissue water Collected 12/18/81. Mature bird, 0.7 kg. Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11973 Kidney	4	<370-8.8X10(E+6) pCi/L	4.4X10(E+6) pCi/L Median	Tissue water Collected 3/11-10/28/81 1.0-1.5 yr olds, 30-50 kg. Nevada, Nevada Test Site
11974 Liver	1	Not applicable	2.2X10(E+6)+/- 3.6X10(E+3) pCi/L	Tissue water Collected 10/28/81. 1.0 yr old, 30 kg. Nevada, Nevada Test Site
11975 Muscle	1	Not applicable	2.4X10(E+6)+/- 4.2X10(E+3) pCi/L	Tissue water Collected 10/28/81. 1.0 yr old, 30 kg. Nevada, Nevada Test Site
CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp				

Tritium
10028-17-8
T2
MW 6.032, MP -254.54 C at 162 mm Hg, BP -248.12 C

Sheep, desert bighorn
OVIS CANADENSIS NELSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11976 Kidney	17	<370-1800 pCi/L	<480 pCi/L Median	Aqueous portion of tissue Killed by hunters 11/15-12/20/81. Approx age 5-11 yr. Nevada. Clark, Esmeralda, and Lincoln Counties.

CATTLE; DEER; SHEEP; HORSES; BIRDS; GOATS; MUSCLES; LIVER; LUNGS; LYMPH NODES; GONADS; FEMUR; THYROID GLANDS; KIDNEYS; BLOOD; BONES; VISCERA; ENVIRONMENTAL EXPOSURE; NEVADA; STRONTIUM; PLUTONIUM; POTASSIUM; CESIUM; RADIONUCLIDES; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; TERRESTRIAL

Smith, D.D.; Giles, K.R. 1982 DOE/DP/00539-047, DE83 014397. Annual Report, 1981. 64pp

Uranium
7440-61-1
U
AtW 238.029, MP 1132 C, BP 3818 C, VP 100 mm Hg at 3270 C

Blackfly
SIMULIUM sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11977 Body, whole	a) 28 b) 25	a) Not given b) Not given	a) 2.64+/-0.47 ug/g b) 0.57+/-0.07 ug/g Wet wt S.e.	a) From tailings system, below 1st tailings lake, affected by effluents from Eldorado Nuclear U mill b) From Fredette Creek, control. Canada, NE of Lake Athabasca NA

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Caddisfly
NEMOTAULIUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11978 Body, whole	a) 9 b) 5	a) Not given b) Not given	a) 25.63+/-2.59 ug/g b) 4.40+/-1.72 ug/g Wet wt S.E.	a) From tailings system, just above BaCl2 treatment, affected by effluents from Eldorado Nuclear U mill b) From Fredette Creek, control. Canada, NE of Lake Athabasca NA

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Uranium

7440-61-1
U
AtW 238.029, MP 1132 C, BP 3818 C, VP 100 mm Hg at 3270 C

Chub, lake
COUESIUS PLUMBEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11979 Body, whole	14	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 56.56+/-5.22 ug/g b) 1.97+/-0.12 ug/g c) 25.50+/-2.45 ug/g d) 0.62+/-0.11 ug/g e) 54.50+/-9.06 ug/g f) 1.98+/-0.36 ug/g	a) Tailings Creek, mouth, ash wt, 5 cases b) Wet wt c) beaverlodge Lake, ash wt, 4 cases d) Wet wt e) Ace Creek, mouth, ash wt 5 cases f) Wet wt Uneviscerated animals. All areas receive effluent from Eldorado Nuclear U mill. Canada, NE of Lake Athabasca NA

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11980 Bone	2 Ingestion	Not given	9 ppb	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 69.3+/-71.9, 16.2+/-10.4, and 17.5+/-10.4 ppb. Canada, British Columbia, Okanagan Highlands Fluorimetry
11981 Liver	2 Ingestion	Not given	5 ppb	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 69.3+/-71.9, 16.2+/-10.4, and 17.5+/-10.4 ppb. Canada, British Columbia, Okanagan Highlands Fluorimetry
11982 Muscle	2 Ingestion	Not given	24 ppb	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 69.3+/-71.9, 16.2+/-10.4, and 17.5+/-10.4 ppb. Canada, British Columbia, Okanagan Highlands Fluorimetry

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION

Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703

Uranium

7440-61-1
U
AtW 238.029, MP 1132 C, BP 3818 C, VP 100 mm Hg at 3270 C

Dragonfly
AESCHNA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11983 Body, whole	a) 5 b) 8	a) Not given b) Not given	a) 4.64+/-0.97 ug/g b) 0.95+/-0.46 ug/g Wet wt S.E.	a) From tailings system, just below BaCl2 treatment, affected by effluents from Eldorado Nuclear U mill b) From Predette Creek, control. Canada, NE of Lake Athabasca NA
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Midge
CHIRONOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11984 Body, whole	1	Not applicable	15 ug/g	Larvae from tailings system, mouth of Tailings Creek. Canada, NE of Lake Athabasca NA
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Raven
CORVUS CORVAX

Tissue	Cases Exposure Route	Range	Mean	General Information
11985 Bone	Ingestion	Not given	0.003 pCi/g Dry wt	From area of high natural radioactivity. Levels in some food chain components, grouseberry (V. scoparium), chipmunks (Eutamius amoenus), and deermice (Peromyscus maniculatus) were, respectively, 16.2+/-10.4, 10, and <5 ppb (composite samples). Canada, British Columbia, Okanagan Highlands Fluorimetry

(next page)

Uranium
7440-61-1
U
AtW 238.029, MP 1132 C, BP 3818 C, VP 100 mm Hg at 3270 C

Raven
CORVUS CORVAX

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11986 Liver	Ingestion	Not given	0.004 pCi/g Dry wt	From area of high natural radioactivity. Levels in some food chain components, grouseberry (V. scoparium), chipmunks (Eutamius amoenus), and deermice (Peromyscus maniculatus) were, respectively, 16.2+/-10.4, 10, and <5 ppb (composite samples). Canada, British Columbia, Okanagan Highlands Fluorimetry
11987 Muscle	Ingestion	Not given	0.003 pCi/g Dry wt	From area of high natural radioactivity. Levels in some food chain components, grouseberry (V. scoparium), chipmunks (Eutamius amoenus), and deermice (Peromyscus maniculatus) were, respectively, 0.29+/-0.39, 0.004+/-0.002, and 0.013+/-0.005 pCi/g. Canada, British Columbia, Okanagan Highlands Alpha-beta analysis
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703				

Shiner, spottail
NOTROPIS HUDSONIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
11988 Body, whole	1	a) Not given b) Not given	a) 28.60 ug/g b) 1.03 ug/g	a) Ace Creek, mouth, ash wt b) Wet wt Uneviscerated animals. Creek receives effluent from Eldorado Nuclear U mill. Canada, NE of Lake Athabasca NA
CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES Swanson, S.M. 1985 Health Physics 49(5):747-770				

Uranium

7440-61-1
U
AtW 238.029, MP 1132 C, BP 3818 C, VP 100 mm Hg at 3270 C

Sucker, finescale
CATOSTOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
11989 Muscle	1 Ingestion	Not given	<5 ppm Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, algae, plankton, and the mollusc PISIDIUM sp. were, respectively, 0.34+/-0.17, 10,320+/-6,180, 13,400, 600+/-210, 400 ppb (value for water in ppm). Canada, British Columbia, Okanagan Highlands Fluorimetry
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703				

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
11990 Body, whole	7	a) Not given b) Not given c) Not given d) Not given	a) 78.30 ug/g b) 2.67 ug/g c) 64.10+/-17.49 ug/g c) 3.39+/-0.78 ug/g	a) Tailings Creek, mouth, ash wt, 1 case b) Wet wt c) Ace Creek, mouth, ash wt, 6 cases d) Wet wt Uneviscerated animals. Both areas receive effluent from Eldorado Nuclear U mill. Canada, NE of Lake Athabasca NA
11991 Bone	a) 20 b) 18	a) Not given b) Not given	a) 13.67+/-0.96 ug/g b) 0.14+/-0.02 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA
11992 Gonads	a) 20 b) 18	a) Not given b) Not given	a) 0.66+/-0.24 ug/g b) 0.009+/-0.002 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA
11993 Liver	a) 20 b) 18	a) Not given b) Not given	a) 2.07+/-0.44 ug/g b) 0.16+/-0.06 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA
11994 Muscle	a) 20 b) 18	a) Not given b) Not given	a) 0.06+/-0.01 ug/g b) 0.01+/-0.01 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA

(next page)

Uranium

7440-61-1
U
AtW 238.029, MP 1132 C, BP 3818 C, VP 100 mm Hg at 3270 C

Sucker, white
CATOSTOMUS COMMERSONI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
11995 SKin	a) 20 b) 18	a) Not given b) Not given	a) 3.02+/-0.17 ug/g b) 0.04+/-0.01 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA
11996 Stomach	a) 20 b) 18	a) Not given b) Not given	a) 85.99+/-13.97 ug/g b) 3.54+/-0.94 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control. Canada, NE of Lake Athabasca NA

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
11997 Bone	17 Ingestion	Not given	40 ppm Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, algae, plankton, and the mollusc PISIDIUM sp. were, respectively, 0.34+/-0.17, 10,320+/-6,180, 13,400, 600+/-210, 400 ppb (value for water in ppm). Canada, British Columbia, Okanagan Highlands Fluorimetry
11998 Muscle	17 Ingestion	Not given	<5 ppb Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, algae, plankton, and the mollusc PISIDIUM sp. were, respectively, 0.34+/-0.17, 10,320+/-6,180, 13,400, 600+/-210, 400 ppb (value for water in ppm). Canada, British Columbia, Okanagan Highlands Fluorimetry

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; FISHES; DEER; CANADA; RADIONUCLIDES; URANIUM; LEAD; RADIUM; POLONIUM; FOOD CHAINS; INGESTION; FOOD CONTAMINATION

Mahon, D.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:697-703

Uranium

7440-61-1
U
AtW 238.029, MP 1132 C, BP 3818 C, VP 100 mm Hg at 3270 C

Whitefish, lake
COREGONUS CLUPEAFORMIS

Tissue	Cases Exposure Route	Range	Mean	General Information
11999 Bone	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 13.16+/-1.76 ug/g b) 0.55+/-0.09 ug/g c) 1.09+/-0.41 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca NA
12000 Gonad	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.48+/-0.10 ug/g b) 0.06+/-0.02 ug/g c) 0.42+/-0.20 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca NA
12001 Liver	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 3.76+/-0.87 ug/g b) 0.16+/-0.04 ug/g c) 0.75+/-0.31 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca NA
12002 Muscle	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.08+/-0.02 ug/g b) 0.06+/-0.002 ug/g c) 0.010+/-0.002 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca NA
12003 Skin	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 1.94+/-0.37 ug/g b) 0.10+/-0.02 ug/g c) 0.25+/-0.07 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca NA
12004 Stomach	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 165.08+/-49.28 ug/g b) 1.90+/-0.44 ug/g c) 18.04+/-6.27 ug/g S.E. Wet wt	a) Beaverlodge Lake, receives effluent from Eldorado Nuclear U mill b) Milliken Lake, control c) Fredette Lake, control. Canada, NE of Lake Athabasca NA

CANADA; AQUATIC; FISHES; LIVER; STOMACH; GONADS; BONES; BODY; MUSCLES; SKIN; URANIUM; LEAD; RADIUM; POLONIUM; WATER POLLUTION; RADIOISOTOPES; RADIONUCLIDES; FOOD CONTAMINATION; NUCLEAR FACILITIES

Swanson, S.M. 1985 Health Physics 49(5):747-770

Urea, 3-(3,4-dichlorophenyl)-1-methoxy-1-methyl- (8 CI); Urea, N'-(3,4-dichlorophenyl)-N-methoxy-N-methyl- (9 CI)
330-55-2
C9-H10-Cl2-N2-O2
MW 249.11, MP 93-94 C, VP 1.5X10(E-5) mm Hg at 24 C

Mosquito
CULEX PIPIENS

Tissue	Cases Exposure Route	Range	Mean	General Information
12005 Body		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.7965 ppm b) 3.4905 ppm c) 4.4200 ppm d) 4.5422 ppm e) 0.0039 ppm f) 1.9200 ppm	a) Applied to sand, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Applied to sorghum leaves, measured extractable [14-C] d) Unextractable [14-C] e) Co-applied with paraquat (added on d 5), measured extractable [14-C] f) Unextractable [14-C] 2 mg [14-C]-labeled mixed with 8 mg unlabeled applied to model ecosystem. Measured d 32 in larvae. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12006 Body		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 3.1445 ppm b) 8.0625 ppm c) 1.1568 ppm d) 1.1015 ppm e) 0.0056 ppm f) 10.6792 ppm	a) Applied to sand, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Applied to sorghum leaves, measured extractable [14-C] d) Unextractable [14-C] e) Co-applied with paraquat (added on d 5), measured extractable [14-C] f) Unextractable [14-C] 2 mg [14-C]-labeled mixed with 8 mg unlabeled applied to model ecosystem. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Urea, 3-(3,4-dichlorophenyl)-1-methoxy-1-methyl- (8 CI); Urea, N'-(3,4-dichlorophenyl)-N-methoxy-N-methyl- (9 CI)
330-55-2
C9-H10-Cl2-N2-O2
MW 249.11, MP 93-94 C, VP 1.5X10(E-5) mm Hg at 24 C

Snail
PHYSA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12007 Body		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.5520 ppm b) 0.7155 ppm c) 0.6955 ppm d) 1.5080 ppm e) 0.011 ppm f) 1.7213 ppm	a) Applied to sand, measured compound and its polar and nonpolar degradative products as extractable [14-C] b) Unextractable [14-C] c) Applied to sorghum leaves, measured extractable [14-C] d) Unextractable [14-C] e) Co-applied with paraquat (added on d 5), measured extractable [14-C] f) Unextractable [14-C] 2 mg [14-]-labeled mixed with 3 mg unlabeled applied to model ecosystem. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Vanadium
7440-62-2
V
AtW 50.9414, MP 1917 C, BP 3000 C, VP 1 mm Hg at 2290 C, 10 mm Hg at 2570 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12008 Brain	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.19 ug/g b) 0.18 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
12009 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.22 ug/g b) 0.20 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
12010 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.26 ug/g b) 0.28 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA

(next page)

Vanadium

7440-62-2
V
AtW 50.9414, MP 1917 C, BP 3000 C, VP 1 mm Hg at 2290 C, 10 mm Hg at 2570 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12011 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.20 ug/g b) 0.18 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
12012 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.21 ug/g b) 0.20 ug/g Wet wt	a) Controls, fed normal feedlot ration b) Fed feedlot ration amended with 12% municipal sewage sludge Fort Collins anaerobically digested sludge. Colorado NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
12013 Body		0-0.1 ug/g Dry wt	Not given	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Vanadium
7440-62-2
V
AtW 50.9414, MP 1917 C, BP 3000 C, VP 1 mm Hg at 2290 C, 10 mm Hg at 2570 C

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
12014 Body		0-0.1 ug/g Dry wt	Not given	Collected during 1978-80 Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements. India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Xylene (8 CI); Bensene, dimethyl- (9 CI)
1330-20-7
C8-H10
MW 106.18, BP 137-140 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12015 Body		Not given	16 ppb Wet wt	Collected in May-June, 1980, from mouth of Inner Harbor Navigational Canal leading to Lake Pontchartrain. Expressed as equivalents of 2-bromo-1-chloropropane. Louisiana GC/MS
BODY; SHELLFISH; AQUATIC; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINATED HYDROCARBONS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION Ferrario, J.B.; Lawler, G.C.; DeLeon, I.R.; Laseter, J.L. 1985 Bulletin of Environmental Contamination and Toxicology 34:246-255				

Xylenol, phosphate (3:1) (8 CI); Phenol, dimethyl-, phosphate (3:1) (9 CI)

25155-23-1
C24-H27-O4-P
Minnow
PHOXINUS PHOXINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12016 Body	a) 3 b) 3 c) 3 d) 3 e) 3 Ingestion	a) 0.006-0.047 ug/g b) 0.020-0.30 ug/g c) 0.041-0.540 ug/g d) 0.20-1.17 ug/g e) 0.165-1.287 ug/g Fresh wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not appliable	a) 100 ug/g b) 300 ug/g c) 1,000 ug/g d) 3,000 ug/g e) 10,000 ug/g Nominal concentrations of triaryl phosphate (Pliabrac 521) in food which was given in 0.25 g portion/d for 120 d (=2 g/fish). Controls negative. Range of means from 3 peaks (10, 16, 20). Sweden, Tvaren Bay Reproductive effects GC
DELIBERATE EXPOSURE; FISHES; AQUATIC; BODY; SWEDEN; BIOACCUMULATION; INDUSTRIAL CHEMICALS; WATER POLLUTION Bengtsson, B.-E.; Tarkpea, M.; Sletten, T.; Carlberg, G.E.; Kringstad, A.; Renberg, L. 1986 Environmental Toxicology and Chemistry 5:853-861				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C
Avocet, American
RECURVIROSTRA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
12017 Liver	a) 10 b) 5 c) 5	a) 18-46 ppm b) 27-33 ppm c) 20-34 ppm Wet wt	a) 31 ppm b) 30 ppm c) 29 ppm Wet wt Geometric means	a) Controls, 11/81 b) Dredge-pits, 10/81 c) Dredge-pits, 2/82 Controls were collected at Port Mansfield or Powderhorn Lake. Others from Neuces Bay, Corpus Christi, at two times while impoundment area with sediment from dredging was covered with water and attractive to birds. Limit of detection 0.2 ppm. Texas AAS
LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; METAL POISONING; LEAD POISONING; LEAD; ZINC; CADMIUM; MERCURY; SELENIUM; ANIMAL POPULATIONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIAL PLANTS White, D.H.; Cromartie, E. 1985 Bulletin of Environmental Contamination and Toxicology 34:295-300				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Barnacle
BALANUS IMPROVISUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12018 Body				Review. Discussion of biology of heavy metals in marine organisms, including uptake, accumulation, toxicity, and possible detoxification mechanisms.

REVIEW; ENVIRONMENTAL EXPOSURE; AQUATIC; CRUSTACEANS; BODY; ZINC; COPPER
Rainbow, P.S. 1985 International Journal of Environmental Studies 25:195-211

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
12019 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 19.20 ug/g b) 18.70 ug/g c) 18.15 ug/g d) 18.93 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Bayou Petite Prairie c) Spring Bayou d) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin ES

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Tissue	Cases Exposure Route	Range	Mean	General Information
12020 Muscle	3	0.077-0.085 mg/kg Wet wt	0.080 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS
Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Bass, striped
MORONE SAXATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12021 Gonads	a) 9 b) 10	a) 17.1-73.0 ug/g b) 15.3-80.1 ug/g	a) 39.82 ug/g b) 26.3 ug/g	a) Collected 1978, Choptank River b) Collected April, 1979, Rock Hall, Chesapeake Bay. Detection limit 1.0 ug/g. Means calculated by extractor. Part of study to measure contamination levels of the aquatic ecosystem and to develop baseline data for reference in determining suitablity for human consumption of various species. Maryland, Chesapeake Bay and tributaries AAS
12022 Liver	a) 28 b) 10	21.6-35.6 ug/g	29.62 ug/g	Collected May, 1978, Turkey Creek. Detection limit 1.0. Part of study to measure contamination levels of the aquatic ecosystem and to develop baseline data for reference in determining suitablitiy for human consumption of various species. Maryland, Chesapeake Bay and tributaries AAS
12023 Muscle	a) 28 b) 10	a) 2.89-5.22 ug/g b) 5.9-8.9 ug/g	a) 4.035 ug/g b) 7.2 ug/g	a) Collected May, 1978, Turkey Point b) Collected April, 1979, Rock Detection limit 1.0. Mean calculated by extractor. Part of study to measure contamination levels of the aquatic ecosystem and to develop baseline data for reference in determining suitablitiy for human consumption of various species. Maryland, Chesapeake Bay and tributaries AAS
ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; COPPER; ZINC; LEAD; MERCURY; CADMIUM; CHROMIUM; ARSENIC; MUSCLES; GONADS; LIVER; METALS; CHESAPEAKE BAY; MARYLAND; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING Eisenberg, M.; Topping, J.J. 1986 Journal of Environmental Science and Health B21(1):87-102				

Bear
URSUS SPELEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12024 Bone	4	220-320 ug/g	Not given	Pleistocene (20-50,000 yr BP) specimens. Humerus, femur and ulna, collected from caves, late 19th century. Significance of sampling techniques, burial site conditions and other geochemical and geographic factors is discussed. France ICP-AES
BONES; FRANCE; POLAND; TERRESTRIAL; BEARS; HORSES; LIONS; DOGS; CATTLE; COMPARATIVE EVALUATIONS; CADMIUM; LEAD; ZINC; BARIUM; MAGNESIUM; CALCIUM; MINERALS Jaworowski, Z.; Barbalat, F.; Blain, C.; Evelyn Peyre 1985 Science of the Total Environment 43:103-126				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Beetle

Tissue	Cases Exposure Route	Range	Mean	General Information
12025 Body		Not given	470 mg/kg Dry wt	Larvae collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Genera were DENDROIDES and NEOPYROCHROA sp. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS				
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Beetle, bark
DENDROIDES CANADENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12026 Body		Not given	1450 mg/kg Dry wt	Larvae collected June-Oct 79 at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS				
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Beetle, carrion
NICROPHORUS TOMENTOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12027 Body		a) Not given b) Not given	a) 120 mg/kg b) 150 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS				
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Bird

Tissue	Cases Exposure Route	Range	Mean	General Information
12028 Liver	a) 2 b) 4	a) 110-130 ppm b) 55-170 ppm Dry wt	a) 120 ppm b) 105 ppm Dry wt Geometric	a) Detected in 2/2 samples collected 1983 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 4/4 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management. California, San Joaquin Valley AAS
BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. *1986 Science of the Total Environment* 52:49-63				

Blowfly
CALLIPHORIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12029 Body		Not given	740 mg/kg Dry wt	Collected June-Oct 79 at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE, SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Bluefish
POMATOMUS SALTATRIX

Tissue	Cases Exposure Route	Range	Mean	General Information
12030 Muscle				*Review.* Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Bluegill

LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12031 Liver	a) 10 b) 10 c) 10	a) Not given b) Not given c) Not given	a) 55.9+/-6.7 ug/g b) 61.2+/-6.7 ug/g c) 77.0+/-6.7 ug/g Dry wt	a) Collected from Christianson's Pond, unpolluted site b) From cooling system intake, H.B. Robinson Steam Plant, intermediate Cu levels c) From near effluent discharge, high Cu levels Collected 11/81. Pooled samples. Also studied lab and *field exposure*. South Carolina, Florence AAS

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; COPPER; LIVER; MUSCLES; SOUTH CAROLINA; WATER POLLUTION

Harrison, F.L.; Lam, J.R. 1986 Environmental Health Perspectives 65:125-132

Tissue	Cases Exposure Route	Range	Mean	General Information
12032 *Muscle*	2	0.110-0.125 mg/kg Wet wt	0.118 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS

Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Boar

SUS SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12033 Liver	5	27.26-60.46 ppm Wet wt	46.28 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilised sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Boar
SUS SCROFA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12034 Muscle	5	22.00-51.02 ppm Wet wt	36.39 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650				

Bowfin
AMIA CALVA

Tissue	Cases Exposure Route	Range	Mean	General Information
12035 Body, whole		a) Not given b) Not given c) Not given	a) 15.50 ug/g b) 17.40 ug/g c) 17.20 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Bayou Petite Prairie Collected 6/81. Louisiana, Atchafalaya River Basin ES
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Buffalo, smallmouth
ICTIOBUS BUBALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12036 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 17.35 ug/g b) 18.20 ug/g c) 27.30 ug/g d) 20.30 ug/g Wet wt Geometric	a) Composite sample from Lake Fausse Point b) Bayou Petite Prairie c) Spring Bayou d) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin ES
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Bullfrog

RANA CATESBEIANA

Tissue	Cases Exposure Route	Range	Mean	General Information
12037 Body	a) 15 b) 15 c) 15 d) 5 e) 5 f) 4 g) 15 h) 15 i) 15	a) 15.5-28.4 ppm b) 29.8-64.5 ppm c) 20.5-37.5 ppm d) 30.8-52.0 ppm e) 23.8-42.5 ppm f) 24.1-38.0 ppm g) 14.9-59.4 ppm h) 15.3-35.8 ppm i) 17.5-32.9 ppm Wet wt	a) 20.9 ppm b) 42.7 ppm c) 29.9 ppm d) 39.4 ppm e) 31.3 ppm f) 29.5 ppm g) 22.3 ppm h) 22.6 ppm i) 21.9 ppm Wet wt Geometric mean	a) Irondale, Big River b) Deslodge c) Brown's Ford d) Morse Mill e) Cedar Hill f) House Springs g) Upper River, Black River h) Clearwater Lake i) Lower River Collection sites. Big River polluted by Pb tailings from mining begun in 1700's and continued through 1972. Black River drains currently mined area. Limit of detection 0.1 ppm. Missouri, Big River, Black River ICP-AES
12038 Brain	5	Not applicable	18.4 ppm Wet wt	Collected from Deslodge site on Big River, 1982, downstream from Pb tailings piles. Composite samples. Limit of detection 0.1 ppm. Missouri ICP-AES
12039 Kidney	5	Not applicable	36.6 ppm Wet wt	Collected from Deslodge site on Big River, 1982, downstream from Pb tailings piles. Composite samples. Limit of detection 0.1 ppm. Missouri ICP-AES
12040 Liver	5	Not applicable	49.3 ppm Wet wt	Collected from Deslodge site on Big River, 1982, downstream from Pb tailings piles. Composite samples. Limit of detection 0.1 ppm. Missouri ICP-AES
12041 Muscle	5	Not applicable	12.7 ppm Wet wt	Collected from Deslodge site on Big River, 1982, downstream from Pb tailings piles. Composite samples. Limit of detection 0.1 ppm. Missouri ICP-AES
12042 Skin	5	Not applicable	109.0 ppm Wet wt	Collected from Deslodge site on Big River, 1982, downstream from Pb tailings piles. Composite samples. Limit of detection 0.1 ppm. Missouri ICP-AES
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C. VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12043 Body		a) 384-401 ug/g b) 402-385 ug/g c) 379-384 ug/g d) 412-379 ug/g e) 403-410 ug/g f) 383-382 ug/g g) 364-340 ug/g h) 318-296 ug/g Ash wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicabl	a) Exposed 3 mo to Cd, then EDTA for 30 d b) Same, EDTA for 60 d c) Same, EDTA for 90 d d) Controls, exposed 3 mo to Cd, then water for 30 d e) Same, water for 60 d f) Same, water for 90 d g) Cd-exposed, 30 d, no treatment after exposure h) Cd-exposed entire time, 3 mo+90 d Excludes viscera and gills. First value in each range is from animals exposed to Cd at 0.01 ppm, second is from those exposed to 0.05 ppm. Values were 395, 410, 407 ug/g for tap water controls, animals at start, unexposed animals given EDTA only, respectively. Japan AAS
12044 Gills		a) 1390-1370 ug/g b) 1500-1450 ug/g c) 1630-1480 ug/g d) 1400-1510 ug/g e) 1480-1580 ug/g f) 1600-1590 ug/g g) 1520-1330 ug/g h) 1470-1460 ug/g Ash wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicabl	a) Exposed 3 mo to Cd, then EDTA for 30 d b) Same, EDTA for 60 d c) Same, EdTA for 90 d d) Controls, exposed 3 mo to Cd, then water for 30 d e) Same, water for 60 d f) Same, water for 90 d g) Cd-exposed, 30 d, no treatment after exposure h) Cd-exposed entire time, 3 mo+90 d First value in each range is from animals exposed to Cd at 0.01 ppm, second is from those exposed to 0.05 ppm. Values were 1610, 1590, 1540 ug/g for tap water controls, animals at start, unexposed animals given EDTA only, respectively. Japan AAS
12045 Viscera		a) 1570-1520 ug/g b) 1560-1600 ug/g c) 1710-1680 ug/g d) 1420-1590 ug/g e) 1670-1500 ug/g f) 1820-1740 ug/g g) 1550-1410 ug/g h) 1490-1340 ug/g Ash wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicabl	a) Exposed 3 mo to Cd, then EDTA for 30 d b) Same, EDTA for 60 d c) Same, EdTA for 90 d d) Controls, exposed 3 mo to Cd, then water for 30 d e) Same, water for 60 d f) Same, water for 90 d g) Cd-exposed, 30 d, no treatment after exposure h) Cd-exposed entire time, 3 mo+90 d First value in each range is from animals exposed to Cd at 0.01 ppm, second is from those exposed to 0.05 ppm. Values were 1780, 1510, 1530 ug/g for tap water controls, animals at start, unexposed animals given EDTA only, respectively. Japan AAS

DELIBERATE EXPOSURE; FISHES; AQUATIC; GILLS; VISCERA; BODY; CADMIUM; COPPER; ZINC; METALS; WATER POLLUTION; JAPAN; CHELATING AGENTS

Muramoto, S. 1982 Journal of Environmental Science and Health A17(1):67-74

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cat

Tissue	Cases Exposure Route	Range	Mean	General Information
12046 Hair	a) 26 b) 12 c) 10	a) 15-22 ug/g b) 18-30 ug/g c) 9-24 ug/g	a) 18.5 ug/g b) 22 ug/g c) 18 ug/g	a) Cats from Tokyo, Japan b) From Philippines c) From Norway Domestic animals, part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS

Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Catbird

DUMETELLA CAROLINENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12047 Body	a) 2 b) 1	a) 93-120 mg/kg b) Not aplicable Dry wt	a) 106.5 mg/kg b) 93 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Catfish

ICTALURUS *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
12048 Muscle	2	0.054-0.059 mg/kg Wet wt	0.057 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS

Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12049 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 18.76 ug/g b) 22.80 ug/g c) 20.63 ug/g d) 27.76 ug/g e) 26.80 ug/g f) 18.30 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Little Pigeon Bayou d) Grand Lake e) Henderson Lake f) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin ES

FISHES, AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS

Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12050 Blood	a) 78 b) 18 Ingestion	a) Not given b) Not given	a) 3.1 ug/g b) 3.0 ug/g Wet wt	a) Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago b) Controls grazed on untreated pastures 16 km from experimental herd. 3-4 yr old Hereford, Angus and Charlois [sic] cows. South Dakota; Illinois AAS

DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; ILLINOIS; METALS; ZINC; COPPER; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707

Tissue	Cases Exposure Route	Range	Mean	General Information
12051 Blood	a) 9 b) 2 Ingestion	a) Not given b) Not given	a) 299.444 ug/100 ml b) 284.750 ug/100 ml	a) Sludge farms b) Control farms Cows on farms approximately 28 mo. Sludge farms received at least 2 annual applications. Detection limit 2.6 ug/100 ml. Ohio, Medina and Franklin-Pickaway Counties AAS

OHIO; CADMIUM; COPPER; LEAD; ZINC; METALS; CATTLE; KIDNEYS; BLOOD; LIVER; MUSCLES; BONES; HAIR; SEWAGE SLUDGE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE

Reddy, C.S.; Dorn, C.R.; Lamphere, D.N.; Powers, J.D. 1985 Environmental Research 38:360-376

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12052 Blood				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.

REVIEW; ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; CATTLE; HORSES; MINING; SMELTERS; OCCUPATIONAL HAZARDS; KIDNEYS; LIVER; BONES; HAIR; BLOOD; MONTANA; MISSOURI; UNITED STATES; ZINC; CADMIUM

Burrows, G.E. 1981 Veterinary and Human Toxicology 23(5):337-343

Tissue	Cases Exposure Route	Range	Mean	General Information
12053 Blood, serum	607	0.4-8.2 ppm	2.34+/-4.13 ppm	Mineral profile, 1981-1983. Several breeds, age 0->6 yr. ICP-AES

BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION

Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565

Tissue	Cases Exposure Route	Range	Mean	General Information
12054 Bone	85 Ingestion	a) 25-68 ug/g b) 82-86 ug/g c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given Dry wt	a) Not given b) Not given c) 47 ug/g d) 44 ug/g e) 78 ug/g f) 52 ug/g g) 71 ug/g h) 59 ug/g Dry wt	a) 1-4 mo old calves. Mothers grazing in untreated (control) pastures <= 6 yr, 6 cases b) 1-4 mo old calves, mothers grazing in pasture treated with anaerobically digested wastewater sludge (exposed), 9 cases c) 8-9 mo old calves, control mothers, 85 cases d) 8-9 mo old calves, exposed mothers, 70 cases e) Rib from 3 mo old calves, control mothers, 5 cases f) Rib from same calves at 15 mo g) Rib from 3 mo old calves, exposed mothers, 10 cases h) Rib from same calves at 15 mo.

DIAPHRAGM; HEART; LIVER; KIDNEYS; BONES; BRAIN; COPPER; ZINC; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; FETUS; JUVENILES; BIOACCUMULATION; TRANSPLACENTAL TRANSFER; LACTATION

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(1):165-168

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12055 Bone	a) 62 b) 27 Ingestion	a) Not given b) Not given	a) 49 ug/g b) 57 ug/g Dry wt	a) Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago b) Controls grazed on untreated pastures 16 km from experimental herd. 3-4 yr old Hereford, Angus and Charlois [sic] cows. South Dakota; Illinois AAS

DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; *ILLINOIS*; *METALS*; *ZINC*; *COPPER*; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707

Tissue	Cases Exposure Route	Range	Mean	General Information
12056 Bone	9	80-125 ug/g	Not given	Femurs, tibiae and ulnae. Detection limit 1.0 ug/g. Absence probably due to use of calcium and phosphorus supplements in feed. France, Sarthe AAS; MS

BONES; FRANCE; POLAND; TERRESTRIAL; BEARS; HORSES; LIONS; DOGS; CATTLE; COMPARATIVE EVALUATIONS; CADMIUM; LEAD; ZINC; BARIUM; MAGNESIUM; CALCIUM; MINERALS

Jaworowski, Z.; Barbalat, F.; Blain, C.; Evelyn Peyre 1985 Science of the Total Environment 43:103-126

Tissue	Cases Exposure Route	Range	Mean	General Information
12057 Bone				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.

REVIEW; ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; CATTLE; HORSES; MINING; SMELTERS; OCCUPATIONAL HAZARDS; KIDNEYS; LIVER; BONES; HAIR; BLOOD; MONTANA; MISSOURI; UNITED STATES; ZINC; CADMIUM

Burrows, G.E. 1981 Veterinary and Human Toxicology 23(5):337-343

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12058 Brain	a) 58 b) 26 Ingestion	a) Not given b) Not given	a) 45 ug/g b) 40 ug/g Dry wt	a) 8-9 mo old calves, mothers grazing in untreated pasture b) 8-9 mo old calves, mothers grazing in pastures treated with anaerobically digested wastewater sludges Grazing </= 6 yr in given pasture.

DIAPHRAGM; HEART; LIVER; KIDNEYS; BONES; BRAIN; COPPER; ZINC; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; FETUS; JUVENILES; BIOACCUMULATION; TRANSPLACENTAL TRANSFER; LACTATION
Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(1):165-168

Tissue	Cases Exposure Route	Range	Mean	General Information
12059 Brain	a) 59 b) 24 Ingestion	a) Not given b) Not given	a) 43 ug/g b) 40 ug/g Dry wt	a) Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago b) Controls grazed on untreated pastures 16 km from experimental herd. 3-4 yr old Hereford, Angus and Charlois [sic] cows. South Dakota; Illinois AAS

DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; ILLINOIS; METALS; ZINC; COPPER; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS
Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707

Tissue	Cases Exposure Route	Range	Mean	General Information
12060 Brain	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 9.3 ug/g b) 10.0 ug/g c) 9.0 ug/g d) 8.9 ug/g e) 29.9 ug/g f) 30.8 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis, no Chelex separation b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis, no Chelex separation c) Same as a) except inductively coupled plasma analysis, Chelex separation d) Same as a) except inductively coupled plasma analysis, Chelex separation e) Same as a) except neutron activation analysis f) Same as b) except neutron activation analysis Fort Collins anaerobically digested sludge. Colorado ICP; NA

DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE
Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12061 Diaphragm	a) 5 b) 10 c) 6 d) 9 e) 35 f) 68 Ingestion	a) Not given b) Not given c) 77-134 ug/g d) 93-121 ug/g e) Not given f) Not given Dry wt	a) 83 ug/g b) 150 ug/g c) Not given d) Not given e) 127 ug/g f) 119 ug/g Dry wt	a) 4-5 mo old fetuses. Mothers grazing in untreated (control) pastures <= 6 yr b) 4-5 mo old fetuses. Mothers grazing in pasture treated with anaerobically digested wastewater sludges (exposed) c) 1-4 mo old calves, control mothers d) 1-4 mo old calves, exposed mothers e) 8-9 mo old calves, control mothers f) 8-9 mo old calves, exposed mothers.

DIAPHRAGM; HEART; LIVER; KIDNEYS; BONES; BRAIN; COPPER; ZINC; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; FETUS; JUVENILES; BIOACCUMULATION; TRANSPLACENTAL TRANSFER; LACTATION

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(1):165-168

Tissue	Cases Exposure Route	Range	Mean	General Information
12062 Diaphragm	a) 63 b) 29 Ingestion	a) Not given b) Not given	a) 116 ug/g b) 125 ug/g Dry wt	a) Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago b) Controls grazed on untreated pastures 16 km from experimental herd. 3-4 yr old Hereford, Angus and Charlois [sic] cows. South Dakota; Illinois AAS

DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; ILLINOIS; METALS; ZINC; COPPER; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707

Tissue	Cases Exposure Route	Range	Mean	General Information
12063 Hair	Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 122.705 ug/g b) 145.136 ug/g c) 121.879 ug/g d) 126. 554 ug/g	a) Pre-sludge b) Post-sludge c) Control, "pre-sludge" d) Control, "post-sludge" Each value a mean of 48 calves from 4 farms over 3 yr from 1978-82. Duration of post-sludge phases was 3-8 mo. Control periods approx equal to sludge farm ones. Sludge treatment 2-10 metric tons/hectare, total applied 5223 mg/kg. Detection limit 0.4 ug/g. Ohio, Medina and Franklin-Pickaway Counties AAS

OHIO; CADMIUM; COPPER; LEAD; ZINC; METALS; CATTLE; KIDNEYS; BLOOD; LIVER; MUSCLES; BONES; HAIR; SEWAGE SLUDGE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE

Reddy, C.S.; Dorn, C.R.; Lamphere, D.N.; Powers, J.D. 1985 Environmental Research 38:360-376

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12064 Hair				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.

REVIEW; ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; CATTLE; HORSES; MINING; SMELTERS; OCCUPATIONAL HAZARDS; KIDNEYS; LIVER; BONES; HAIR; BLOOD; MONTANA; MISSOURI; UNITED STATES; ZINC; CADMIUM

Burrows, G.E. 1981 Veterinary and Human Toxicology 23(5):337-343

Tissue	Cases Exposure Route	Range	Mean	General Information
12065 Heart	a) 5 b) 10 c) 6 d) 9 e) 34 f) 68 Ingestion	a) Not given b) Not given c) 44-90 ug/g d) 48-74 ug/g e) Not given f) Not given Dry wt	a) 81 ug/g b) 116 ug/g c) Not given d) Not given e) 61 ug/g f) 65 ug/g Dry wt	a) 4-5 mo old fetuses. Mothers grazing in untreated (control) pastures <= 6 yr b) 4-5 mo old fetuses. Mothers grazing in pasture treated with anaerobically digested wastewater sludges (exposed) c) 1-4 mo old calves, control mothers d) 1-4 mo old calves, exposed mothers e) 8-9 mo old calves, control mothers f) 8-9 mo old calves, exposed mothers.

DIAPHRAGM; HEART; LIVER; KIDNEYS; BONES; BRAIN; COPPER; ZINC; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; FETUS; JUVENILES; BIOACCUMULATION; TRANSPLACENTAL TRANSFER; LACTATION

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(1):165-168

Tissue	Cases Exposure Route	Range	Mean	General Information
12066 Heart	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 60 ug/g b) 60 ug/g Dry wt	a) Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago b) Controls grazed on untreated pastures 16 km from experimental herd. 3-4 yr old Hereford, Angus and Charlois [sic] cows. South Dakota; Illinois AAS

DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; ILLINOIS; METALS; ZINC; COPPER; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12067 Kidney	90	0-65 ppm	27.3+/-29.6 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES

BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION

Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565

Tissue	Cases Exposure Route	Range	Mean	General Information
12068 Kidney	a) 5 b) 10 c) 6 d) 9 e) 35 f) 68 g) 5 h) 10 i) 5 j) 10 Ingestion	a) Not given b) Not given c) 54-74 ug/g d) 45-73 ug/g e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given Dry wt	a) 65 ug/g b) 74 ug/g c) Not given d) Not given e) 73 ug/g f) 78 ug/g g) 57 ug/g h) 60 ug/g i) 54 ug/g j) 67 ug/g Dry wt	a) 4-5 mo old fetuses. Mothers grazing in untreated (control) pastures <=/= 6 yr b) 4-5 mo old fetuses. Mothers grazing in pasture treated with anaerobically digested wastewater sludges (exposed) c) 1-4 mo old calves, control mothers d) 1-4 mo old calves, exposed mothers e) 8-9 mo old calves, control mothers f) 8-9 mo old calves, exposed mothers g) At weaning (9 mo), mothers in control pastures h) Mothers in exposed pastures i) 150 d after weaning. Fed regular diet. From mothers in control pastures j) Same as i) except mothers in exposed pastures.

DIAPHRAGM; HEART; LIVER; KIDNEYS; BONES; BRAIN; COPPER; ZINC; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; FETUS; JUVENILES; BIOACCUMULATION; TRANSPLACENTAL TRANSFER; LACTATION

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(1):165-168

Tissue	Cases Exposure Route	Range	Mean	General Information
12069 Kidney	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 104 ug/g b) 85 ug/g Dry wt	a) Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago b) Controls grazed on untreated pastures 16 km from experimental herd. 3-4 yr old Hereford, Angus and Charlois [sic] cows. South Dakota; Illinois AAS

DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; ILLINOIS; METALS; ZINC; COPPER; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12070 Kidney	a) 36 b) 36 Ingestion	a) Not given b) Not given	a) 22.507 ug/g b) 23.011 ug/g	a) After 30-day waiting period, calves grazed on sewage sludge-treated pasture (2-10 metric tons/hectare, mean applied in 1978-82 was 5223 mg/kg) b) Calves grazed on control, untreated pasture Detection limit 1.3 ug/g. Ohio, Medina and Franklin-Pickaway Counties AAS
OHIO; CADMIUM; COPPER; LEAD; ZINC; METALS; CATTLE; KIDNEYS; BLOOD; LIVER; MUSCLES; BONES; HAIR; SEWAGE SLUDGE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE Reddy, C.S.; Dorn, C.R.; Lamphere, D.N.; Powers, J.D. 1985 Environmental Research 38:360-376				

Tissue	Cases Exposure Route	Range	Mean	General Information
12071 Kidney	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given k) Not given l) Not given	a) 88.4 ug/g b) 93 ug/g c) 93 ug/g d) 96 ug/g e) 84 ug/g f) 82 ug/g g) 77 ug/g h) 88 ug/g i) 131 ug/g j) 82 ug/g k) 98 ug/g l) 116 ug/g Wet wt	a) Controls, range cattle b) Cattle grazed at sludge disposal site (abandoned Lowry Bombing Range) c) Young feed-lot steers, controls for d), fed no sludge d) Fed 3 mo with 12% Ft Collins sludge in diet e) Controls for f) f) As in d), Metro Denver sludge g) Control cows for h-i), fed no sludge h) Cows fed 9 mo with 12% Ft Collins sludge in diet i) As in h) plus 4-mo withdrawal j) Control steers for k-l) k) Steers, same as h) l) As in k) plus 4-mo withdrawal Data on soil samples, forages included. Colorado
CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; LIVER; KIDNEYS; CADMIUM; COPPER; ZINC; LEAD; IRON; DIETS; ANIMAL FEEDS; SEWAGE SLUDGE Baxter, J.C.; Johnson, D.; Burge, W.D.; Kienholz, E.; Cramer, W.N. 1983 EPA Report Number EPA-600/S2-83-012				

Tissue	Cases Exposure Route	Range	Mean	General Information
12072 Kidney				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.
REVIEW; ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; CATTLE; HORSES; MINING; SMELTERS; OCCUPATIONAL HAZARDS; KIDNEYS; LIVER; BONES; HAIR; BLOOD; MONTANA; MISSOURI; UNITED STATES; ZINC; CADMIUM Burrows, G.E. 1981 Veterinary and Human Toxicology 23(5):337-343				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12073 Kidney	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 19.2 ug/g b) 19.8 ug/g c) 19.0 ug/g d) 20.0 ug/g e) 44.9 ug/g f) 40.9 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis, no Chelex separation b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis, no Chelex separation c) Same as a) except inductively coupled plasma analysis, Chelex separation d) Same as a) except inductively coupled plasma analysis, Chelex separation e) Same as a) except neutron activation analysis f) Same as b) except neutron activation analysis Fort Collins anaerobically digested sludge. *Colorado* ICP; NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Tissue	Cases Exposure Route	Range	Mean	General Information
12074 Liver	229	9->200 ppm	90.0+/-134 mg/kg Wet wt	Mineral profile, 1981-1983. Tissue referred to lab for necropsy exam. Several breeds, age 0->6 yr. ICP-AES
BLOOD SERUM; LIVER; KIDNEYS; CATTLE; TERRESTRIAL; ADULTS; JUVENILES; MEASUREMENT METHODS; CALCIUM; CADMIUM; COPPER; IRON; MAGNESIUM; MANGANESE; MOLYBDENUM; PHOSPHORUS; POTASSIUM; SODIUM; ZINC; ALUMINUM; ARSENIC; CHROMIUM; LEAD; BIOCONCENTRATION Stowe, H.D.; Braselton, W.E.; Kaneene, J.B.; Slanker, M. 1985 American Journal of Veterinary Research 46(3):561-565				

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12075 Liver	a) 5 b) 10 c) 6 d) 9 e) 34 f) 68 g) 5 h) 10 i) 5 j) 10 k) 5 l) 10 Ingestion	a) Not given b) Not given c) 91-100 ug/g d) 68-115 ug/g e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given k) Not given l) Not given Dry wt	a) 648 ug/g b) 680 ug/g c) Not given d) Not given e) 119 ug/g f) 115 ug/g g) 100 ug/g h) 109 ug/g i) 92 ug/g j) 81 ug/g k) 58 ug/g l) 62 ug/g Dry wt	a) 4-5 mo old fetuses. Mothers grazing in untreated (control) pastures <\/= 6 yr b) 4-5 mo old fetuses. Mothers grazing in pasture treated with anaerobically digested wastewater sludges (exposed) c) 1-4 mo old calves, control mothers d) 1-4 mo old calves, exposed mothers e) 8-9 mo old calves, control mothers f) 8-9 mo old calves, exposed mothers g) At weaning (9 mo), mothers in control pastures h) Mothers in exposed pastures i) 150 d after weaning. Fed regular diet. From mothers in control pastures j) Same as i) except mothers in exposed pastures k) Mothers of a) l) Mothers of b).

DIAPHRAGM; HEART; LIVER; KIDNEYS; BONES; BRAIN; COPPER; ZINC; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; FETUS; JUVENILES; BIOACCUMULATION; TRANSPLACENTAL TRANSFER; LACTATION

Fitzgerald, P.R.; Peterson, J.; Lue-Hing. C. 1985 American Journal of Veterinary Research 46(1):165-168

Tissue	Cases Exposure Route	Range	Mean	General Information
12076 Liver	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 163 ug/g b) 104 ug/g Dry wt	a) Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago b) Controls grazed on untreated pastures 16 km from experimental herd. 3-4 yr old Hereford, Angus and Charlois [sic] cows. South Dakota; Illinois AAS

DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; ILLINOIS; METALS; ZINC; COPPER; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS

Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707

Tissue	Cases Exposure Route	Range	Mean	General Information
12077 Liver	a) 36 b) 36 Ingestion	a) Not given b) Not given	a) 43.369 ug/g b) 46.924 ug/g	a) After 30-day waiting period, calves grazed on sewage sludge-treated pasture (2-10 metric tons/hectare, mean applied in 1978-82 was 5223 mg/kg) b) Calves grazed on control, untreated pasture Detection limit 2.5 ug/g. Ohio, Medina and Franklin-Pickaway Counties AAS

OHIO; CADMIUM; COPPER; LEAD; ZINC; METALS; CATTLE; KIDNEYS; BLOOD; LIVER; MUSCLES; BONES; HAIR; SEWAGE SLUDGE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE

Reddy, C.S.; Dorn, C.R.; Lamphere, D.N.; Powers, J.D. 1985 Environmental Research 38:360-376

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12078 Liver	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 132 ug/g b) 129 ug/g c) 142 ug/g d) 132 ug/g e) 87 ug/g f) 101 ug/g Dry wt	a) Controls, range cattle b) Cattle grazed at sludge disposal site (abandoned Lowry Bombing Range) c) Young feed-lot steers, controls for d), fed no sludge d) Fed 3 mo with 12% Ft Collins sludge in diet e) Controls for f) f) As in d), Metro Denver sludge. Colorado
CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; LIVER; KIDNEYS; CADMIUM; COPPER; ZINC; LEAD; IRON; DIETS; ANIMAL FEEDS; SEWAGE SLUDGE Baxter, J.C.; Johnson, D.; Burge, W.D.; Kienholz, E.; Cramer, W.N. 1983 EPA Report Number EPA-600/S2-83-012				

Tissue	Cases Exposure Route	Range	Mean	General Information
12079 Liver				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.
REVIEW; ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; CATTLE; HORSES; MINING; SMELTERS; OCCUPATIONAL HAZARDS; KIDNEYS; LIVER; BONES; HAIR; BLOOD; MONTANA; MISSOURI; UNITED STATES; ZINC; CADMIUM Burrows, G.E. 1981 Veterinary and Human Toxicology 23(5):337-343				

Tissue	Cases Exposure Route	Range	Mean	General Information
12080 Liver	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 36.2 ug/g b) 36.0 ug/g c) 35.4 ug/g d) 36.4 ug/g e) 60.1 ug/g f) 62.3 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis, no Chelex separation b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis, no Chelex separation c) Same as a) except inductively coupled plasma analysis, Chelex separation d) Same as a) except inductively coupled plasma analysis, Chelex separation e) Same as a) except neutron activation analysis f) Same as b) except neutron activation analysis Fort Collins anaerobically digested sludge. Colorado ICP; NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12081 Milk	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 2.94 ug/g b) 2.53 ug/g Wet wt	a) Treatment group b) Controls Treatment group grazed on pastures variously treated for up to 8 yr with anaerobically digested sludge from Metropolitan Sanitary District of Greater Chicago. Controls grazed on untreated pastures 16 km from experimental herd. South Dakota; Illinois AAS
DIAPHRAGM; HEART; LIVER; KIDNEYS; BRAIN; BONES; BLOOD; MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; ILLINOIS; METALS; ZINC; COPPER; CADMIUM; CHROMIUM; NICKEL; LEAD; IRON; BIOACCUMULATION; ANIMAL FEEDS; FOOD CONTAMINATION; FARMS; LAND POLLUTION; SEWAGE; SOILS Fitzgerald, P.R.; Peterson, J.; Lue-Hing, C. 1985 American Journal of Veterinary Research 46(3):703-707				

Tissue	Cases Exposure Route	Range	Mean	General Information
12082 Muscle	a) 36 b) 36 Ingestion	a) Not given b) Not given	a) 39.938 ug/g b) 38.533 ug/g	a) After 30-day waiting period, calves grazed on sewage sludge-treated pasture (2-10 metric tons/hectare, mean applied in 1978-82 was 5223 mg/kg) b) Calves grazed on control, untreated pasture Detection limit 1.7 ug/g. Ohio, Medina and Franklin-Pickaway Counties AAS
OHIO; CADMIUM; COPPER; LEAD; ZINC; METALS; CATTLE; KIDNEYS; BLOOD; LIVER; MUSCLES; BONES; HAIR; SEWAGE SLUDGE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE Reddy, C.S.; Dorn, C.R.; Lamphere, D.N.; Powers, J.D. 1985 Environmental Research 38:360-376				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12083 Muscle	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 68.9 ug/g b) 68.7 ug/g c) 64.5 ug/g d) 68.1 ug/g e) 73 ug/g f) 70 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis, no Chelex separation b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis, no Chelex separation c) Same as a) except inductively coupled plasma analysis, Chelex separation d) Same as a) except inductively coupled plasma analysis, Chelex separation e) Same as a) except neutron activation analysis f) Same as b) except neutron activation analysis Fort Collins anaerobically digested sludge. Colorado ICP; NA
12084 Spleen	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 24.9 ug/g b) 23.4 ug/g c) 24.0 ug/g d) 22.9 ug/g e) 44.5 ug/g f) 39.8 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis, no Chelex separation b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis, no Chelex separation c) Same as a) except inductively coupled plasma analysis, Chelex separation d) Same as a) except inductively coupled plasma analysis, Chelex separation e) Same as a) except neutron activation analysis f) Same as b) except neutron activation analysis Fort Collins anaerobically digested sludge. Colorado ICP; NA
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; KIDNEYS; LIVER; MUSCLES; SPLEEN; BRAIN; ALUMINUM; CALCIUM; CADMIUM; COPPER; COBALT; CHLORINE; IRON; POTASSIUM; MAGNESIUM; MANGANESE; MOLYBDENUM; SODIUM; NICKEL; PHOSPHORUS; LEAD; RUBIDIUM; ANTIMONY; SELENIUM; VANADIUM; ZINC; INGESTION; MEASUREMENT METHODS; SEWAGE SLUDGE Boyer, K.W.; Jones, J.W.; Linscott, D.; Wright, S.K.; Stroube, W.; Cunningham, W. 1981 Journal of Toxicology and Environmental Health 8:281-295				

Cattle (ancient)

Tissue	Cases Exposure Route	Range	Mean	General Information
12085 Bone	2	122-145 ug/g	134 ug/g	Pleistocene (20-50,000 yr BP) metacarpals, Bovidae family. Collected from caves. Significance of sampling techniques, burial site conditions and other geochemical and geographic factors is discussed. Calculated mean. France; Poland ICP-AES
BONES; FRANCE; POLAND; TERRESTRIAL; BEARS; HORSES; LIONS; DOGS; CATTLE; COMPARATIVE EVALUATIONS; CADMIUM; LEAD; ZINC; BARIUM; MAGNESIUM; CALCIUM; MINERALS Jaworowski, Z.; Barbalat, F.; Blain, C.; Evelyn Peyre 1985 Science of the Total Environment 43:103-126				

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Centipede
GEOPHILOMORPHA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12086 Body		Not given	1180 mg/kg Dry wt	Collected June-Oct 79 at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Chickadee, Carolina
PARUS CAROLINENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12087 Body	1	Not applicable	130 mg/kg Dry wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Alimentary canal, feet, tail, beak, skin not included. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12088 Kidney	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 54+/-1 ppm b) 79+/-11 ppm Dry wt	a) Defined diet, controls b) Same diet plus 20% activated sludge (local wastewater treatment plant, Dan Region) 5 day olds, fed for 3 wk. Each value from duplicate determinations of 3 pools, 6 chicks/pool. Difference significant, $p<0.05$. Israel AAS
12089 Liver	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 52+/-1.9 ppm b) 74+/-0.7 ppm Dry wt	a) Defined diet, controls b) Same diet plus 20% activated sludge (local wastewater treatment plant, Dan Region) 5 day olds, fed for 3 wk. Each value from duplicate determinations of 3 pools, 6 chicks/pool. Difference significant, $p<0.05$. Israel AAS
DELIBERATE EXPOSURE; TERRESTRIAL; BIRDS; MAGNESIUM; MANGANESE; IRON; ZINC; COPPER; LEAD; CADMIUM; SEWAGE SLUDGE; BIOACCUMULATION Nachtomi, E.; Lipstein, B.; Iosif, B.; Alumot, E. 1984 Nutrition Reports International 29(3):511-517				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cicada
MAGICICADA REPTENDECIM

Tissue	Cases Exposure Route	Range	Mean	General Information
12090 Body, whole		a) Not given b) Not given	a) 270 mg/kg b) 220 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
12091 Body		a) Not given b) Not given	a) 100+/-0 ppm b) 80+/-4.8 ppm Dry wt	Samples collected from entrance of the Chef Menteur Pass Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS
MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158				

Clam (M. balthica)
MACOMA BALTHICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12092 Body	a) 5 b) 6 c) 5 d) 4 e) 3	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 282+/-17 ug/g b) 177+/-10 ug/g c) 215+/-17 ug/g d) 199+/-24 ug/g e) 477+/-80 ug/g S.E. Dry wt	a) Mouth of Patapsco River, near Baltimore b) Chester River c) Mouth of Port Tobacco River d) Mid-section of York River e) Between mid-section and mouth of York River Soft tissues, each sample a pool of several clams, collected in fall 1979-81. Chesapeake Bay region
CADMIUM; LEAD; COPPER; ZINC; ENVIRONMENTAL EXPOSURE; AQUATIC; MOLLUSKS; CHESAPEAKE BAY; BODY; BIOLOGICAL MONITORING Di Giulio, R.T.; Scanlon, P.F. 1985 Science of the Total Environment 41:259-274				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Clam (M. lateralis)
MULINEA LATERALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12093 Body	5	Not given	131+/-5 ug/g S.E. Dry wt	Soft tissues, each sample a pool of several clams, collected in fall 1979-81, southeastern shore. Chesapeake Bay region
CADMIUM; LEAD; COPPER; ZINC; ENVIRONMENTAL EXPOSURE; AQUATIC; MOLLUSKS; CHESAPEAKE BAY; BODY; BIOLOGICAL MONITORING Di Giulio, R.T.; Scanlon, P.F. 1985 Science of the Total Environment 41:259-274				

Clam (R. cuneata)
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
12094 Body	a) 5 b) 5 c) 6 d) 4 e) 8 f) 5 g) 6 h) 4 i) 4	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 64+/-3 ug/g b) 72+/-3 ug/g c) 180+/-14 ug/g d) 191+/-20 ug/g e) 199+/-21 ug/g f) 147+/-5 ug/g g) 225+/-16 ug/g h) 167+/-25 ug/g i) 78+/-11 ug/g S.E. Dry wt	a) Lower Choptank River b) Mouth of Port Tobacco River c) Potomac River, downstream from Port Tobacco River d) Mattaponi River e) Pamunky River f) Mid-section of York River g) Mouth of Chickahominy River h) James River, downstream from Chickahominy River i) James River, between Chickahominy River and Norfolk Soft tissue, each sample a pool of several clams, collected in fall 1979-81. Chesapeake Bay region
CADMIUM; LEAD; COPPER; ZINC; ENVIRONMENTAL EXPOSURE; AQUATIC; MOLLUSKS; CHESAPEAKE BAY; BODY; BIOLOGICAL MONITORING Di Giulio, R.T.; Scanlon, P.F. 1985 Science of the Total Environment 41:259-274				

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Clam, Asiatic
CORBICULA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12095 Body		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 250 ug/g b) 1000 ug/g c) 500 ug/g d) 800 ug/g e) 850 ug/g f) 1940 ug/g	a) Day 10 of exposure, spring b) Day 30 c) Day 10, summer d) Day 30 e) Day 10, fall f) Day 30 *Collected from New River near an industrial pumphouse. Exposed to 1.0 mg/L. Control levels were 150-250 ug/g. Data on other exposure levels included. Outdoor artificial streams.* Virginia Highest mortality, 50%, was in summer exposure Increases in tissue water, growth inhibition
DELIBERATE EXPOSURE; AQUATIC; CLAMS; MUSSELS; BODY; ZINC; WATER POLLUTION Belanger, S.E.; Farris, J.L.; Cherry, D.S.; Cairns, J. 1986 Archives of Environmental Contamination and Toxicology 15:427-434				

Clam, soft-shelled
MYA ARENARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
12096 Body	a) 7 b) 5	a) Not given b) Not given	a) 99+/-9 ug/g b) 103+/-9 ug/g S.E. Dry wt	a) Mouth of Potomac River b) Mouth of James River Soft tissues, each sample a pool of several clams, collected in fall 1979-81. Chesapeake Bay region
CADMIUM; LEAD; COPPER; ZINC; ENVIRONMENTAL EXPOSURE; AQUATIC; MOLLUSKS; CHESAPEAKE BAY; BODY; BIOLOGICAL MONITORING Di Giulio, R.T.; Scanlon, P.F. 1985 Science of the Total Environment 41:259-274				

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
12097 Body	17	2.5-5.6 mg/kg Wet wt	4.5 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978-84. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
12098 Liver		a) 29.120 mg/kg b) 51-160 mg/kg c) 24-180 mg/kg d) 15-170 mg/kg e) 11-220 mg/kg f) 14-180 mg/kg Dry wt	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) From Fladen, 1980, 23.3-27.6 cm long, 191-275 g, 7.43-55.7% fat b) 1981, 25.0-27.5 cm, 185-224 g, 2.33-18.5% fat c) 1982, 23.5-26.9 cm, 168-255 g, 2.79-40.5% fat d) From SE Gotland, 1980, 25.3-35.5 cm, 243-625 g, 2.88-64.1% fat e) 1981, 24.5-38.5 cm, 253-700 g, 262-69.0% fat f) 1982, 24.3-33.5 cm, 193-480 g, 3.03-68.3% fat Concluded metal levels dependent on fat content. Kattegat (south of Fladen); Baltic (southeast of Gotland) AAS
LIVER; COPPER; ZINC; CADMIUM; LEAD; ENVIRONMENTAL EXPOSURE; SWEDEN; METALS; FISHES; AQUATIC; WATER POLLUTION Grimas, U.; Gothberg, A.; Notter, M.; Olsson, M.; Reutergardh, L. 1985 Ambio 14(3):175-178				

Coot, American
FULICA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
12099 Eggs	4	32-84 ppm Dry wt	47.8 ppm Dry wt Geometric	Collected 1983 from Kesterson National Wildlife Refuge in Merced Co., in which agricultural drainage water is being used for marsh management. California, San Joaquin Valley AAS
BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63				

Tissue	Cases Exposure Route	Range	Mean	General Information
12100 Liver	a) 19 b0 10 c) 79 d) 40	a) 20-87 ppm b) 28-44 ppm c) 23.9-90 ppm d) 20-77 ppm Wet wt	a) 40.2 ppm b) 33.1 ppm c) 49.3 ppm d) 43.4 ppm Wet wt Geometric	a) 1 yr before startup, power plant site b) Control site, same as a) c) Range from 6 mo-2 yr post-startup, power plant site d) Control site, same as c) Values in c), d) Compiled by extractor Significant differences between power plant, control sites at 6 mo post-startup (50.0 and 35.1 ppm, respectively) and 1 yr (43.3 and 35.4 ppm). Study was to determine levels at coal-fired power plant ash pond and control site (Port Mansfield). Pre-startup samples in 3, 10, 11/79 and post-startup samples for 2 yr after 10/80. Detection limits, entire study, 0.1-0.2 ppm. Texas Goliad County, Fannin; Texas, Port Mansfield AAS
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; FOSSIL FUELED POWER PLANTS; TEXAS; COPPER; ZINC; NICKEL; CADMIUM; MERCURY; MOLYBDENUM; LEAD; ARSENIC; SELENIUM; KIDNEYS; BONES; LIVER White, D.H.; King, K.A.; Mitchell, C.A.; Mulhern, B.M. 1986 Bulletin of Environmental Contamination and Toxicology 36:376-383				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Copepod

Tissue	Cases Exposure Route	Range	Mean	General Information
12101 Body				Review dealing with quality of data on trace metals in marine samples.

ENVIRONMENTAL EXPOSURE; AQUATIC; REVIEW; FISHES; LOBSTERS; CRUSTACEANS; MOLLUSKS; SCALLOPS; COPEPODS; MUSCLES; LIVER; BODY; COPPER; ZINC; MERCURY; CADMIUM; LEAD; ARSENIC; METALS; WATER POLLUTION; MEASUREMENT METHODS; TRACE ELEMENTS

Topping, G. 1986 Science of the Total Environment 49:9-25

Crab
CANCER PAGURUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12102 *Hepatopancreas*		a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 31.5 ppm b) 28.5 ppm c) 40.8 ppm d) 55.6 ppm Wet wt	a) 1 wk after 3 doses of 5 mg/kg/wk b) 2 wk after third dose c) 3 wk after d) 17 wk after 5 mg/kg Intramuscular injection of copper sulfate in 1.1% sodium chloride. Metallothioneins isolated and analyzed for Cu and Cd in these animals, and in another group pretreated with cadmium. United Kingdom, Aberdeen AAS

HEPATOPANCREAS; AQUATIC; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; COPPER; CADMIUM; ZINC; BIOACCUMULATION; MINERAL METABOLISM; CRABS; CRUSTACEANS

Overnell, J. 1982 Comparative Biochemistry and Physiology 73 B(3):555-564

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12103 *Muscle*	2	0.088-0.100 mg/kg Wet wt	0.094 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS

Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12104 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 15.93 ug/g b) 22.90 ug/g c) 19.00 ug/g d) 25.60 ug/g e) 23.20 ug/g f) 24.76 ug/g Wet wt Geometric	a) Composite samples from Lake Fausse Point b) Little Pigeon Bayou c) Henderson Lake d) Bayou Petite Prairie e) Spring Bayou f) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin ES

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Crayfish
ORCONECTES VIRILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12105 Body, whole	a) 17 b) 17 c) 17 d) 17 e) 17 f) 17	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 346.2+/-106.8 ug/g b) 189.2+/-57.5 ug/g c) 175.8+/-60.6 ug/g d) 63.5+/-22.8 ug/g e) 29.3+/-14.3 ug/g f) 66.8+/-5.7 ug/g	a) Exposed 2 wk to mean level of 130.0 mg/L b) 63.3 mg/L c) 26.8 mg/kg d) 12.2 mg/L e) 5.2 mg/L f) Control Concentration factors were 2.7, 3.0, 6.6, 5.2, 5.5 for a)-f), respectively. Colorado, Horsetooth Reservoir (Ft. Collins, 40 deg 31' 5" N, 105 deg 10' 0" E) LC50=84 mg/L for 2 wk exposure AAS
12106 Carapace	a) 17 b) 17 c) 17 d) 17 e) 17 f) 17	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 122.6+/-40.2 ug/g b) 85.8+/-27.7 ug/g c) 64.6+/-28.3 ug/g d) 36.1+/-12.7 ug/g e) 22.5+/-6.8 ug/g f) 7.6+/-1.6 ug/g	a) Exposed 2 wk to mean level of 130.0 mg/L b) 63.3 mg/L c) 26.8 mg/kg d) 12.2 mg/L e) 5.2 mg/L f) Control. Colorado, Horsetooth Reservoir (Ft. Collins, 40 deg 31' 5" N, 105 deg 10' 0" E) LC50=84 mg/L for 2 wk exposure AAS

DELIBERATE EXPOSURE; ZINC; AQUATIC; CRUSTACEANS; CRAYFISHES; COLORADO; WATER POLLUTION; BIOLOGICAL MONITORING; BODY; GILLS; HEPATOPANCREAS; MUSCLES; CARAPACE; INTESTINES
Mirenda, R.J. 1986 Bulletin of Environmental Contamination and Toxicology 37:387-394

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Crayfish

ORCONECTES VIRILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12107 Gills	51	a) 177.45+/-56.85-55.28+/-25.41 ug/g b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given Dry wt	a) Not given b) 129.10+/-98.08 ug/g c) 632.86+/-840.58 ug/g d) 121.55+/-46.59 ug/g e) 65.90+/-44.06 ug/g f) 143.33+/-106.87 ug/g g) 160.63+/-114.0 ug/g h) 156.30+/-76.98 ug/g i) 142.64+/-80.59 ug/g Dry wt	a) Controls, no added Cd, 21 d, range of means, 4 cases b) 5 ug/l Cd, d l, 5 cases c) Day 7, 5 cases d) Day 14, 4 cases e) Day 21, 4 cases f) 10 ug/l Cd, d 1, 4 cases g) Day 7, 4 cases h) Day 14, 5 cases i) Day 21, 4 cases In flow-through outdoor water tanks with 2 cm well-water. Data given on respiration and ATP levels. South Carolina, Savannah River Plant
GILLS; MUSCLES; AQUATIC; CRUSTACEANS; DELIBERATE EXPOSURE; SOUTH CAROLINA; CADMIUM; ZINC Dickson, G.W.; Giesy, J.P.; Briese, L.A. 1982 Environmental Toxicology and Chemistry 1:147-156				

Tissue	Cases Exposure Route	Range	Mean	General Information
12108 Gills	a) 17 b) 17 c) 17 d) 17 e) 17 f) 17	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 5976.6+/-2412.0 ug/g b) 2168.0+/-1248.4 ug/g c) 1628.1+/-986.5 ug/g d) 333.3+/-145.5 ug/g e) 154.5+/-38.1 ug/g f) 41.7+/-18.4 ug/g	a) Exposed 2 wk to mean level of 130.0 mg/L b) 63.3 mg/L c) 26.8 mg/kg d) 12.2 mg/L e) 5.2 mg/L f) Control. Colorado, Horsetooth Reservoir (Ft. Collins, 40 deg 31' 5" N, 105 deg 10' 0" E) LC50=84 mg/L for 2 wk exposure AAS
DELIBERATE EXPOSURE; ZINC; AQUATIC; CRUSTACEANS; CRAYFISHES; COLORADO; WATER POLLUTION; BIOLOGICAL MONITORING; BODY; GILLS; HEPATOPANCREAS; MUSCLES; CARAPACE; INTESTINES Mirenda, R.J. 1986 Bulletin of Environmental Contamination and Toxicology 37:387-394				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Crayfish

ORCONECTES VIRILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12109 Hepatopancreas		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given k) Not given l) Not given m) Not given	a) 37 ug/g b) 35 ug/g c) 87 ug/g d) 111 ug/g e) 109 ug/g f) 57 ug/g g) 36 ug/g h) 77 ug/g i) 73 ug/g j) 81 ug/g k) 51 ug/g l) 41 ug/g m) 40.8+/-3.6 ug/g (S.E.) Wet wt	a) Northern site, Lake Oren b) Southern site c) Northern site, Lake Risten d) Middle site e) Southern site f) Northern site, Lake Borken g) Southern site h) Northern site, Lake Sakern i) Middle site j) Southern site k) Lake Yxningen l) Lake Kvarnsjon m) Controls 3-5 animals/value, 9 control animals d, e) calculated by extractor. All lakes receive leached metals from waste tips at old copper mine in Bersbo. Sweden, Bersbo area AAS

CADMIUM; ZINC; COPPER; CRAYFISH; HEPATOPANCREAS; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MINING; SWEDEN; AQUATIC; INSECTS; LARVAE

Lundholm, C.E.; Andersson, L. 1985 Ambio 14(3):167-172

Tissue	Cases Exposure Route	Range	Mean	General Information
12110 Hepatopancreas	a) 17 b) 17 c) 17 d) 17 e) 17 f) 17	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 638.3+/-321.6 ug/g b) 555.8+/-258.3 ug/g c) 428.0+/-248.8 ug/g d) 212.6+/-121.6 ug/g e) 116.8+/-66.1 ug/g f) 65.7+/-34.2 ug/g	a) Exposed 2 wk to mean level of 130.0 mg/L b) 63.3 mg/L c) 26.8 mg/kg d) 12.2 mg/L e) 5.2 mg/L f) Control. Colorado, Horsetooth Reservoir (Ft. Collins, 40 deg 31' 5" N, 105 deg 10' 0" E) LC50=84 mg/L for 2 wk exposure AAS
12111 Intestine	a) 17 b) 17 c) 17 d) 17 e) 17 f) 17	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 221.8+/-59.2 ug/g b) 213.5+/-68.3 ug/g c) 124.2+/-45.2 ug/g d) 100.9+/-59.9 ug/g e) 86.5+/-22.0 ug/g f) 50.9+/-27.3 ug/g	a) Exposed 2 wk to mean level of 130.0 mg/L b) 63.3 mg/L c) 26.8 mg/kg d) 12.2 mg/L e) 5.2 mg/L f) Control. Colorado, Horsetooth Reservoir (Ft. Collins, 40 deg 31' 5" N, 105 deg 10' 0" E) LC50=84 mg/L for 2 wk exposure AAS

DELIBERATE EXPOSURE; ZINC; AQUATIC; CRUSTACEANS; CRAYFISHES; COLORADO; WATER POLLUTION; BIOLOGICAL MONITORING; BODY; GILLS; HEPATOPANCREAS; MUSCLES; CARAPACE; INTESTINES

Mirenda, R.J. 1986 Bulletin of Environmental Contamination and Toxicology 37:387-394

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Crayfish

ORCONECTES VIRILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12112 Muscle	51	a) 48.73+/-28.72-104.73+/-53.6 ug/g b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given Dry wt	a) Not given b) 74.62+/-11.48 ug/g c) 69.60+/-19.92 ug/g d) 54.90+/-19.85 ug/g e) 90.0+/-37.1 ug/g f) 72.78+/-10.71 ug/g g) 67.23+/-17.90 ug/g h) 45.52+/-25.26 ug/g i) 85.75+/-22.08 ug/g Dry wt	a) Controls, no added Cd, 21 d, range of means, 4 cases b) 5 ug/l Cd, d 1, 5 cases c) Day 7, 5 cases d) Day 14, 4 cases e) Day 21, 4 cases f) 10 ug/l Cd, d 1, 4 cases g) Day 7, 4 cases h) Day 14, 5 cases i) Day 21, 4 cases In flow-through outdoor water tanks with 2 cm well-water. Data given on respiration and ATP levels. South Carolina, Savannah River Plant
GILLS; MUSCLES; AQUATIC; CRUSTACEANS; DELIBERATE EXPOSURE; SOUTH CAROLINA; CADMIUM; ZINC Dickson, G.W.; Giesy, J.P.; Briese, L.A. 1982 Environmental Toxicology and Chemistry 1:147-156				

Tissue	Cases Exposure Route	Range	Mean	General Information
12118 Muscle	a) 17 b) 17 c) 17 d) 17 e) 17 f) 17	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 123.4+/-20.1 ug/g b) 100.2+/-18.2 ug/g c) 94.9+/-17.1 ug/g d) 89.0+/-14.1 ug/g e) 83.6+/-12.4 ug/g f) 61.8+/-8.3 ug/g	a) Exposed 2 wk to mean level of 130.0 mg/L b) 63.3 mg/L c) 26.8 mg/kg d) 12.2 mg/L e) 5.2 mg/L f) Control Abdominal muscle. Colorado, Horsetooth Reservoir (Ft. Collins, 40 deg 31' 5" N, 105 deg 10' 0" E) LC50=84 mg/L for 2 wk exposure AAS
DELIBERATE EXPOSURE; ZINC; AQUATIC; CRUSTACEANS; CRAYFISHES; COLORADO; WATER POLLUTION; BIOLOGICAL MONITORING; BODY; GILLS; HEPATOPANCREAS; MUSCLES; CARAPACE; INTESTINES Mirenda, R.J. 1986 Bulletin of Environmental Contamination and Toxicology 37:387-394				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Deer, fallow
DAMA DAMA

Tissue	Cases Exposure Route	Range	Mean	General Information
12114 Liver	8	11.61-62.85 ppm Wet wt	32.72 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
12115 Muscle	8	13.54-111.5 ppm Wet wt	36.65 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650				

Deer, red
CERVUS ELAPHUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12116 Liver	8	21.41-50.15 ppm Wet wt	34.21 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
12117 Muscle	8	30.27-99.99 ppm Wet wt	45.58 Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Deer, white-tailed
ODOCOILEUS VIRGINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12118 Kidney	a) 4 b) 9 c) 5	a) Not given b) Not given c) Not given	a) 310 ppm b) 274 ppm c) 145 ppm Dry wt	a) Collected <8 km from zinc smelter b) Collected 10-20 km from smelter c) Collected >100 km from smelter Mean levels significantly higher near smelters. Pennsylvania, Palmerton ICP-AES
12119 Liver	a) 4 b) 13 c) 5	a) Not given b) Not given c) Not given	a) 256 ppm b) 167 ppm c) 132 ppm Dry wt	a) Collected <8 km from zinc smelter b) Collected 10-20 km from smelter c) Collected >100 km from smelter Mean levels significantly higher near smelters. Pennsylvania, Palmerton ICP-AES
DEER; ENVIRONMENTAL EXPOSURE; ZINC; CADMIUM; LEAD; COPPER; BRAIN; TEETH; LIVER; KIDNEYS; BONES; PENNSYLVANIA; SMELTERS; TERRESTRIAL; METAL POISONING; BIOLOGICAL MONITORING Sileo, L.; Beyer, W.N. 1985 Journal of Wildlife Diseases 21(3):289-296				

Dog
CANIS FAMILIARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12120 Blood, plasma	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 16 ug/ml b) 32 ug/ml	a) 6-yr-old, 24.6 kg castrated Sheltie that consumed approximately 340 g topical ointment (containing 0.5 g zinc oxide) over 4-d period. Recovery after treatment by d 19 b) 3-yr-old golden retriever ingested metal nut >98% zinc Anorexia and vomiting for 2 wk before admission. Surgical removal d 2 in hospital followed by death d 3. Estimated from graph. North Carolina Vomiting, renal tubular toxicity, hemolytic anemia, and hepatic failure. Necropsy of b) showed heart damage, kidney lesions, and liver and spleen abnormalities AAS
ZINC; DOGS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; AUTOPSIES; CASE HISTORIES; METAL POISONING; INGESTION; BLOOD PLASMA; URINE; LIVER; KIDNEYS; NORTH CAROLINA Breitschwerdt, E.B.; Armstrong, P.J.; Robinette, C.L.; Dillman, R.C.; Karl, M.L.; Lowry, E.C. 1986 Veterinary and Human Toxicology 28(2):109-117				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Dog

CANIS FAMILIARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12121 Bone	2	125-150 ug/g	138 ug/g	Pleistocene (20-50,000 yr BP) specimens. Tibia and fibula, collected from cave, late 19th century. Significance of sampling techniques, burial site conditions and other geochemical and geographic factors is discussed. Calculated mean. France ICP-AES

BONES; FRANCE; POLAND; TERRESTRIAL; BEARS; HORSES; LIONS; DOGS; CATTLE; COMPARATIVE EVALUATIONS; CADMIUM; LEAD; ZINC; BARIUM; MAGNESIUM; CALCIUM; MINERALS

Jaworowski, Z.; Barbalat, F.; Blain, C.; Evelyn Peyre 1985 Science of the Total Environment 43:103-126

Tissue	Cases Exposure Route	Range	Mean	General Information
12122 Hair	a) 28 b) 5	a) 13-430 ug/g b) 13-15 ug/g	a) 18 ug/g b) 14 ug/g	a) Stray dogs b) Beagles Domestic animals, part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS

Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Tissue	Cases Exposure Route	Range	Mean	General Information
12123 Kidney	a) 1 b) 12 Ingestion	a) Not given b) 9.2-22.5 ppm	a) 295 ppm b) 14.6 ppm	a) 3-yr-old male golden retriever ingested metal nut >98% zinc. Anorexia and vomiting for 2 wk before admission. Surgical removal of nut d 2 in hospital followed by death d 3. Estimated from graph b) Healthy dogs. North Carolina Vomiting, renal tubular toxicity, hemolytic anemia, and hepatic failure in a) Necropsy of a) showed heart damage, kidney lesions, and liver and spleen abnormalities AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Dog
CANIS FAMILIARIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12124 Liver	a) 1 b) 12 Ingestion	a) Not given b) 17.5-32.1 ppm	a) 369 ppm b) 26.2 ppm	a) 3-yr-old male golden retriever ingested metal nut >98% zinc. Anorexia and vomiting for 2 wk before admission. Surgical removal of nut d 2 in hospital followed by death d 3. Estimated from graph b) Healthy dogs. North Carolina Vomiting, renal tubular toxicity, hemolytic anemia, and hepatic failure in a) Necropsy of a) showed heart damage, kidney lesions, and liver and spleen abnormalities AAS
12125 Urine	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 20 ug/ml b) 25 ug/ml	a) 6-yr-old, 24.6 kg castrated Sheltie that consumed approximately 340 g topical ointment (containing 135 g zinc oxide) over 4-d period. Recovery after treatment by d 19 b) 3-yr-old golden retriever ingested metal nut >98% zinc Anorexia and vomiting for 2 wk before admission. Surgical removal d 2 in hospital followed by death d 3. Estimated from graph. North Carolina Vomiting, renal tubular toxicity, hemolytic anemia, and hepatic failure. Necropsy of b) showed heart damage, kidney lesions, and liver and spleen abnormalities AAS
ZINC; DOGS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; AUTOPSIES; CASE HISTORIES; METAL POISONING; INGESTION; BLOOD PLASMA; URINE; LIVER; KIDNEYS; NORTH CAROLINA Breitschwerdt, E.B.; Armstrong, P.J.; Robinette, C.L.; Dillman, R.C.; Karl, M.L.; Lowry, E.C. 1986 Veterinary and Human Toxicology 28(2):109-117				

Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
12126 Adipose	a) 1 b) 1 c) 1	a) 2.38-8.61 ug/g b) 1.21-2.48 ug/g c) 1.35-2.48 ug/g Wet wt	a) 6.40+/-2.78 ug/g b) 2.02+/-0.58 ug/g c) 2.12+/-0.53 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Samples from melon, front, central and rear segments of blubber. Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Mean % moisture was 87.2+/-5.15, 26.7+/-3.41, 28.1+/-5.41, repectively. Japan, Taiji, Kii Peninsula AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12127 Adrenal gland	3	a) Not applicable b) Not applicable c) Not applicable	a) 14.2 ug/g b) 41.0 ug/g c) 18.1 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12128 Amniotic fluid	1	Not applicable	0.23 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
12129 Blood	a) 1 b) 1	a) Not applicable b) Not applicable	a) 5.76 ug/g b) 5.12 ug/g Wet wt	a) Mature male b) Pregnant female Animals, captured 12/78, weighed 145, 163 kg and ages were 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12130 Bone	3	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable j) Not applicable k) Not applicable	a) 172 ug/g b) 114 ug/g c) 104 ug/g d) 114 ug/g e) 358 ug/g f) 378 ug/g g) 352 ug/g h) 480 ug/g i) 487 ug/g j) 499 ug/g k) 358 ug/g Wet wt	a) Female fetus, skull b) Dorsal vertebra c) Lumbar vertebra d) Caudal vertebra e) Mature male, dosal vertebra f) Lumbar vertebra g) Caudal vertebra h) Pregnant female, skull i) Dorsal vertebra j) Lumbar vertebra k) Caudal vertebra Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, repectively. Japan, Taiji, Kii Peninsula AAS
12131 Cartilage	3	a) Not applicable b) Not applicable c) Not applicable	a) 2.82 ug/g b) 7.21 ug/g c) 9.74 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Intervertebral discs. Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12132 Cerebellum	3	a) Not applicable b) Not applicable c) Not applicable	a) 10.6 ug/g b) 13.8 ug/g c) 12.3 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12133 Cerebrum	3	a) Not applicable b) Not applicable c) Not applicable	a) 8.78 ug/g b) 13.8 ug/g c) 13.4 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12134 Diaphragm	a) 1 b) 1	a) Not applicable b) Not applicable	a) 24.7 ug/g b) 37.5 ug/g Wet wt	a) Female fetus b) Mature male Animals, captured 12/78, weighed 10, 145 kg and ages were 11.6, 16.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12135 Heart	3	a) Not applicable b) Not applicable c) Not applicable	a) 23.8 ug/g b) 23.3 ug/g c) 25.2 ug/g wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12136 Intestine	3	a) Not applicable b) Not applicable c) Not applicable	a) 19.9 ug/g b) 24.3 ug/g c) 22.0 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12137 Kidney	3	a) Not applicable b) Not applicable c) Not applicable	a) 16.7 ug/g b) 24.0 u/g c) 27.7 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12138 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 26.0 ug/g b) 35.5 ug/g c) 35.3 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12139 Lung	3	a) Not applicable b) Not applicable c) Not applicable	a) 9.49 ug/g b) 28.2 ug/g c) 21.2 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12140 Mammary gland	1	Not applicable	22.5 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
12141 Medulla oblongata	3	a) Not applicable b) Not applicable c) Not applicable	a) 9.26 ug/g b) 11.3 ug/g c) 12.2 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12142 Muscle	a) 1 b) 1 c) 1	a) 21.3-27.5 ug/g b) 10.2-29.8 ug/g c) 8.66-24.9 ug/g Wet wt	a) 23.9+/-2.35 ug/g b) 14.5+/-7.69 ug/g c) 12.1+/-6.30 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Samples of dorsal and ventral sides from front, central and rear segments. Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12143 Ovary	1	Not applicable	28.2 ug/g Wet wt	Female fetus, 12/78, wt 10 kg, age 11.6 mo. Japan, Taiji, Kii Peninsula AAS
12144 Pancreas	3	a) Not applicable b) Not applicable c) Not applicable	a) 12.9 ug/g b) 35.8 ug/g c) 36.0 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS

(next page)

Zinc

7440-66-6
Zn
AtW 6 .38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 598 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12145 Placenta	1	Not applicable	18.5 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
12146 Skin	3	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 316 ug/g b) 222 ug/g c) 1,038 ug/g d) 644 ug/g e) 360 ug/g f) 180 ug/g Wet wt	a) Female fetus, black skin b) White skin c) Mature male, black skin d) White skin e) Pregnant female, black skin f) White skin Samples from dorsal (black) and venteral (white) areas posterior to eye. Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12147 Spleen	3	a) Not applicable b) Not applicable c) Not applicable	a) 17.1 ug/g b) 21.8 ug/g c) 27.3 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Japan, Taiji, Kii Peninsula AAS
12148 Stomach	3	a) 0.40-1.01 ug/g b) 0.11-0.88 ug/g c) 0.20-0.98 ug/g Wet wt	a) 0.705 ug/g b) 0.49 ug/g c) 0.62 ug/g Wet wt	a) Female fetus b) Mature male c) Pregnant female Animals, captured 12/78, weighed 10, 145, 163 kg and ages were 11.6, 16.5, 25.5 mo, respectively. Means calculated by extractor from data for 3 samples. Japan, Taiji, Kii Peninsula AAS
12149 Testis	1	Not applicable	13.2 ug/g Wet wt	Mature male, 12/78, wt 145 kg, age 16.5 mo. Japan, Taiji, Kii Peninsula AAS
12150 Umbilical cord	1	Not applicable	16.4 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
12151 Uterus	a) 1 b) 1	a) Not applicable b) Not applicable	a) 19.0 ug/g b) 26.4 ug/g Wet wt	a) Female fetus b) Preganat female Animals, captured 12/78, weighed 10 and 163 kg and ages were 11.6, 25.0 mo, respectively. Japan, Taiji, Kii Peninsula AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12152 Vagina	a) 1 b) 1	a) Not applicable b) Not applicable	a) 15.7 ug/g b) 24.3 ug/g Wet wt	a) Female fetus b) Preganat female Animals, captured 12/78, weighed 10 and 163 kg and ages were 11.6, 25.0 mo, respectively. Japan, Taiji, Kii Peninsula AAS
ENVIRONMENTAL EXPOSURE; DOLPHINS; AQUATIC; IRON; MANGANESE; ZINC; COPPER; LEAD; NICKEL; CADMIUM; CALCIUM; METALS; WATER POLLUTION; MUSCLES; BONES; ADIPOSE TISSUE; LIVER; SKIN; STOMACH; INTESTINES; PANCREAS; ADRENAL GLANDS; HEART; SPLEEN; BLOOD; LUNGS; KIDNEYS; DIAPHRAGM; BRAIN; OVARIES; TESTES; PLACENTA; VAGINA; AMNIOTIC FLUID; UMBILICAL CORD; MAMMARY GLANDS; UTERUS; AGE; FETUS; ADULTS; JAPAN				
Honda, K.; Tatsukawa, R.; Fujiyama, T. 1982 Agricultural and Biological Chemistry 46(12):3011-3021				

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
12153 Body		a) Not given b) Not given	a) 90.5 mg/g b) 139.3 mg/g Wet wt	a) Controls, field with no sewage sludge conditioning b) Treatment group from field with sewage sludge conditioning, 2-OT/ha since 1976. France, Worben
BODY; EARTHWORMS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FRANCE; POLYCHLORINATED BIPHENYLS; METALS; CADMIUM; ZINC; LEAD; COPPER; CHROMIUM; BIOACCUMULATION; SEWAGE; LAND POLLUTION				
Diercxsens, P.; de Weck, D.; Borsinger, N.; Rosset, B.; Tarradellas, J. 1985 Chemosphere 14(5):511-522				

Tissue	Cases Exposure Route	Range	Mean	General Information
12154 Body				Review discusses vital role of earthworms in the environment and their usefulness as test organisms, and it summarizes chemical toxicity data from field and laboratory investigations.
EARTHWORMS; TERRESTRIAL; REVIEW; BIOACCUMULATION; PESTICIDE RESIDUES; INSECTICIDES; BIOINDICATORS; LEAD; ZINC; DDT; METABOLITES; METABOLISM; DELIBERATE EXPOSURE				
Roberts, B.L.; Dorough, H.W. 1985 Environmental Toxicology and Chemistry 4:307-323				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
12155 Body, whole		Not given	300 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Earthworms not observed at Palmerton, 2 km downwind. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Earthworm, red
LUMBRICUS RUBELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12156 Body	a) 16 b) 7 c) 12	a) 849.70-1048.80 ug/g b) 838.60-1062.40 ug/g c) 1060.70-1218.60 ug/g Dry wt	a) 924.36 ug/g b) 934.51 ug/g c) 1087.02 ug/g Dry wt	a) Controls b) Field treated with fertilizer c) Field treated with municipal sludge, significantly higher Ranges of means. 4 samplings between 5/26/81 and 7/16/81. Ohio AAS
BODY; EARTHWORMS; TERRESTRIAL; OHIO; ENVIRONMENTAL EXPOSURE; METALS; CADMIUM; COPPER; LEAD; ZINC; BIOACCUMULATION; SOILS; SEWAGE; LAND POLLUTION; DELIBERATE EXPOSURE Kruse, E.A.; Barrett, G.W. 1985 Environmental Pollution (Series A) 38:235-244				

Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
12157 Body	18	14-29 mg/kg Wet wt	22 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Lake IJssel, 1977. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Eel, American
ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
12158 Muscle	2	0.137-0.146 mg/kg Wet wt	0.142 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS

Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12159 Body, whole	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 15.1+/-1.47 ug/g b) 31.0+/-3.71 ug/g c) 52.2+/-4.45 ug/g d) 56.1+/-4.45 ug/g e) 57.2+/-5.74 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 33.3+/-16.9 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BIRDS; BRAIN; LIVER; KIDNEYS; MUSCLES; SKIN; BONES; FEATHERS; BODY; IRON; NICKEL; MANGANESE; ZINC; COPPER; LEAD; CADMIUM; MERCURY; ADULTS; JUVENILES; KOREA; METALS; BIOACCUMULATION

Honda, K.; Min, B.Y.; Tatsukawa, R. 1986 Archives of Environmental Contamination and Toxicology 15:185-197

Tissue	Cases Exposure Route	Range	Mean	General Information
12160 Bone	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable j) Not applicable	a) 18.8 ug/g b) 58.1 ug/.g c) 87.9 ug/g d) 89.0 ug/g e) 76.1 ug/g f) 92.9 ug/g g) 123 ug/g h) 94.9 ug/g i) 78.1 ug/g j) 91.5 ug/g Wet wt	a) Chick, sternum b) Humerus c) Cervica vertebrae d) Femur e) Tibia f) Adult, sternum g) Humerus h) Cervical vertebrae i) Femur j) Tibia Chick was 12 d old female, adult was a 2 yr old male. Both captured in 1981. Korea, Chungcheongnando, Cheonan City AAS

BIRDS; ENVIRONMENTAL EXPOSURE; IRON; MANGANESE; ZINC; COPPER; LEAD; NICKEL; CADMIUM; MERCURY; MUSCLES; BONES; FEATHERS; BIOACCUMULATION; KOREA; TERRESTRIAL

Honda, K.; Min, B.Y.; Tatsukawa, R. 1985 Bulletin of Environmental Contamination and Toxicology 35:781-789

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Egret, eastern great white

EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12161 Bone	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 54.3+/-3.85 ug/g b) 72.1+/-14.4 ug/g c) 99.1+/-17.0 ug/g d) 118+/-35.6 ug/g e) 87.3+/-6.45 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 85.9+/-23.1 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
12162 Brain	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 12.0+/-2.03 ug/g b) 23.1+/-6.23 ug/g c) 14.8+/-3.29 ug/g d) 14.7+/-0.93 ug/g Wet wt	a) 12-24 day old downy young b) 30-40 day old prefledglings c) 55-70 day old fledgling d) 2 yr old adult males Mean for chicks was 18.4+/-4.31 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BIRDS; BRAIN; LIVER; KIDNEYS; MUSCLES; SKIN; BONES; FEATHERS; BODY; IRON; NICKEL; MANGANESE; ZINC; COPPER; LEAD; CADMIUM; MERCURY; ADULTS; JUVENILES; KOREA; METALS; BIOACCUMULATION Honda, K.; Min, B.Y.; Tatsukawa, R. 1986 Archives of Environmental Contamination and Toxicology 15:185-197				

Tissue	Cases Exposure Route	Range	Mean	General Information
12163 Feathers	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 40.4 ug/g b) 80.1 ug/g c) 116 ug/g d) 165 ug/g e) 97.5 ug/g f) 125 ug/g Wet wt	a) Chick, coverts b) Adult, remiges c) Coverts d) Abdominal e) Primaries, rachis f) Primaries, barbs Chick was 12 d old female, adult was a 2 yr old male. Both captured in 1981. Korea, Chungcheongnando, Cheonan City AAS
BIRDS; ENVIRONMENTAL EXPOSURE; IRON; MANGANESE; ZINC; COPPER; LEAD; NICKEL; CADMIUM; MERCURY; MUSCLES; BONES; FEATHERS; BIOACCUMULATION; KOREA; TERRESTRIAL Honda, K.; Min, B.Y.; Tatsukawa, R. 1985 Bulletin of Environmental Contamination and Toxicology 35:781-789				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Egret, eastern great white

EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12164 Feathers	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 25.2+/-2.50 ug/g b) 49.1+/-7.60 ug/g c) 85.0+/-18.9 ug/g d) 76.4+/-0.21 ug/g e) 114+/-7.58 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 63.3+/-19.5 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
12165 Kidney	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 19.1+/-4.18 ug/g b) 25.0+/-9.85 ug/g c) 13.9+/-1.31 ug/g d) 20.4+/-2.82 ug/g Wet wt	a) 12-24 day old downy young b) 30-40 day old prefledglings c) 55-70 day old fledgling d) 2 yr old adult males Mean for chicks was 20.1+/-4.12 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
12166 Liver	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 25.0+/-8.83 ug/g b) 32.3+/-3.89 ug/g c) 58.3+/-15.2 ug/g d) 52.1+/-32.6 ug/g e) 38.3+/-3.26 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 31.2+/-19.0 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BIRDS; BRAIN; LIVER; KIDNEYS; MUSCLES; SKIN; BONES; FEATHERS; BODY; IRON; NICKEL; MANGANESE; ZINC; COPPER; LEAD; CADMIUM; MERCURY; ADULTS; JUVENILES; KOREA; METALS; BIOACCUMULATION

Honda, K.; Min, B.Y.; Tatsukawa, R. 1986 Archives of Environmental Contamination and Toxicology 15:185-197

Tissue	Cases Exposure Route	Range	Mean	General Information
12167 Muscle	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 13.6 ug/g b) 14.7 ug/g c) 20.9 ug/g d) 44.4 ug/g Wet wt	a) Chick, pectoral muscle b) Femoral muscle c) Adult, pectoral muscle d) Femoral muscle Chick was 12 d old female, adult was a 2 yr old male. Both captured in 1981. Korea, Chungcheongnando, Cheonan City AAS

BIRDS; ENVIRONMENTAL EXPOSURE; IRON; MANGANESE; ZINC; COPPER; LEAD; NICKEL; CADMIUM; MERCURY; MUSCLES; BONES; FEATHERS; BIOACCUMULATION; KOREA; TERRESTRIAL

Honda, K.; Min, B.Y.; Tatsukawa, R. 1985 Bulletin of Environmental Contamination and Toxicology 35:781-789

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12168 Muscle	a) 6 b) 9 c) 6 d) 4 e) 5	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 18.3+/-3.18 ug/g b) 21.3+/-6.05 ug/g c) 34.1+/-12.0 ug/g d) 30.9+/-7.07 ug/g e) 31.7+/-4.24 ug/g Wet wt	a) 1-9 day old downy young b) 12-24 day old downy young c) 30-40 day old prefledglings d) 55-70 day old fledgling e) 2 yr old adult males Mean for chicks was 25.3+/-9.18 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
12169 Skin	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 17.8+/-4.74 ug/g b) 30.5+/-13.4 ug/g c) 30.2+/-2.47 ug/g d) 37.3+/-2.42 ug/g Wet wt	a) 12-24 day old downy young b) 30-40 day old prefledglings c) 55-70 day old fledgling d) 2 yr old adult males Mean for chicks was 23.2+/-9.42 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BIRDS; BRAIN; LIVER; KIDNEYS; MUSCLES; SKIN; BONES; FEATHERS; BODY; IRON; NICKEL; MANGANESE; ZINC; COPPER; LEAD; CADMIUM; MERCURY; ADULTS; JUVENILES; KOREA; METALS; BIOACCUMULATION Honda, K.; Min, B.Y.; Tatsukawa, R. 1986 Archives of Environmental Contamination and Toxicology 15:185-197				

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12170 Body, whole	1830-3050	a) 7.69-168.10 ug/g b) 8.82-109.21 ug/g Wet wt	a) 25.63 ug/g b) 23.82 ug/g Geometric mean Wet wt	a) 1978-79 b) 1980-81 Extensive data given for 60 freshwater species at 112 sites. Composite samples of 3-5 fish. *Part of National Contaminant Biomonitoring Program.* United States AAS
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; UNITED STATES; COMPARATIVE EVALUATIONS; LEAD; MERCURY; CADMIUM; ARSENIC; SELENIUM; COPPER; ZINC; BIOLOGICAL MONITORING; METALS; WATER POLLUTION Lowe, T.P.; May, T.W.; Brumbaugh, W.G.; Kane, D.A. 1985 *Archives of Environmental Contamination and Toxicology* 14:363-388				

Tissue	Cases Exposure Route	Range	Mean	General Information
12171 Muscle				Review dealing with quality of data on trace metals in marine samples.
ENVIRONMENTAL EXPOSURE; AQUATIC; REVIEW; FISHES; LOBSTERS; CRUSTACEANS; MOLLUSKS; SCALLOPS; COPEPODS; MUSCLES; LIVER; BODY; COPPER; ZINC; MERCURY; CADMIUM; LEAD; ARSENIC; METALS; WATER POLLUTION; MEASUREMENT METHODS; TRACE ELEMENTS Topping, G. 1986 Science of the Total Environment 49:9-25				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12172 Muscle	a) 127 b) 80	a) Not detected-53.0 ug/g b) 2.9-35.7 ug/g	a) 11.7 ug/g b) 13.7 ug/g	a) Collected 1978 b) Collected 1979 Detection limit 1.0 ug/g. Means calculated by extractor. Part of study to measure contamination levels of the aquatic ecosystem and to develop baseline data for reference in determining suitablity for human consumption of various species. Maryland, Chesapeake Bay and tributaries AAS
ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; COPPER; ZINC; LEAD; MERCURY; CADMIUM; CHROMIUM; ARSENIC; MUSCLES; GONADS; LIVER; METALS; CHESAPEAKE BAY; MARYLAND; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING Eisenberg, M.; Topping, J.J. 1986 Journal of Environmental Science and Health B21(1):87-102				

Flounder
PLEURONECTES PLATESSA

Tissue	Cases Exposure Route	Range	Mean	General Information
12173 Body, whole				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
12174 Bone				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
12175 Muscle				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Fly, flesh
SARCOPHAGIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12176 Body		Not given	460 mg/kg Dry wt	Collected June-Oct 79 at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Frog, wood
RANA SYLVATICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12177 Body, whole	4	59-130 mg/kg Dry wt	94.3 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Gar, spotted
LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12178 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 23.20 ug/g b) 22.40 ug/g c) 17.50 ug/g d) 29.46 ug/g e) 24.55 ug/g f) 28.70 ug/g g) 23.50 ug/g h) 21.70 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Little Pigeon Bayou d) Grand Lake e) Henderson Lake f) Bayou Petite Prairie g) Spring Bayou h) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin ES
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12179 Hair	2	9-13 ug/g	11 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS

Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Godwit, bar-tailed
LIMOSA LAPPONICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12180 Feathers	a) 10 b) 41	a) 100-200 mg/kg b) 100-900 mg/kg	a) Not given b) Not given	a) Juveniles b) Adults Samples from Schiermonnikoog, Vlieland, and Zoological Museum in Amsterdam. Estimated from graph. Dutch Wadden Sea NA

FEATHERS; LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; MERCURY; ARSENIC; SELENIUM; ZINC; BIOACCUMULATION; WATER POLLUTION

Goede, A.A. 1985 Environmental Pollution (Series A) 37:287-309

Grackle, common
QUISCALUS QUISCULA

Tissue	Cases Exposure Route	Range	Mean	General Information
12181 Body	a) 1 b) 1	a) Not applicable b) Not applicable	a) 110 mg/kg b) 120 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Grasshopper
CHORTHIPPUS BRUNNEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12182 Body	a) 16 b) 16 c) 16 d) 16 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 48.6+/-1.6 mg/kg b) 70.0+/-1.7 mg/kg c) 49.2+/-1.5 mg/kg d) 38.6+/-2.1 mg/kg S.E. Fresh wt	a) Control diet b) Supplemented with Zn c) Supplemented with Cu d) Supplemented with Cd Feed was ryegrass with normal levels of Zn, Cu, Cd (60, 20, 0.7 mg/kg, respectively). Supplements were 40 mg/kg of diet. Feeding trial over 21 days with daily renewal of food supply. Included data based on sex. United Kingdom, England AAS

DELIBERATE EXPOSURE; GRASSHOPPERS; INSECTS; BODY; CADMIUM; COPPER; ZINC; TERRESTRIAL; METALS; BIOCONCENTRATION
Johnson, M.S. 1986 Bulletin of Environmental Contamination and Toxicology 37:234-238

Grosbeak, rose-breasted
PHEUCTICUS LUDOVICIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12183 Body	2	100-110 mg/kg Dry wt	105 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
12184 Hair	10	17-22 ug/g	19 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS
Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Hake, Pacific
MERLUCCIUS PRODUCTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12185 Muscle				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE
Eisler, R. 1984 Biological Trace Element Research 6:165-180

Hamster, golden

Tissue	Cases Exposure Route	Range	Mean	General Information
12186 Hair	5	20-22 ug/g	21 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS
Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Hare, brown
LEPUS CAPENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12187 Liver	5	26.95-32.75 ppm Wet wt	29.24 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Hare, brown
LEPUS CAPENSIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12188 Muscle	5	24.63-37.03 ppm Wet wt	30.81 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. *Spain* AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650				

Hedgehog
ERINACEUS EUROPAEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12189 Liver	5	48.46-54.27 ppm Wet wt	52.14 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. *Spain* AAS
12190 Muscle	5	41.47-61.70 ppm Wet wt	46.02 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. *Spain* AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Heron, green-backed

BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12191 Liver	a) 18 b) 15 c) 20 d) 18 e) 19 f) 19	a) 24.3-40.4 ppm b) 19.8-45.0 ppm c) 23.0-39.5 ppm d) 24.7-51.3 ppm e) 16.1-42.6 ppm f) 20.4-38.0 ppm Wet wt	a) 31.5 ppm b) 33.1 ppm c) 30.5 ppm d) 33.2 ppm e) 27.7 ppm f) 27.8 ppm Wet wt Geometric mean	a) Irondale, Big River b) Deslodge c) Brown's Ford d) Upper River, Black River e) Clearwater Lake f) Lower River Collection sites. Big River polluted by Pb tailings from mining begun in 1700's and continued through 1972. Black River drains currently mined area. Limit of detection 0.1 ppm. Missouri, Big River, Black River ICP-AES
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Herring, Baltic

CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12192 Body	14	3.0-15 mg/kg Wet wt	7.7 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978-84. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Hornet

Tissue	Cases Exposure Route	Range	Mean	General Information
12193 Body		Not given	180 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Horse

EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12194 Bone	3	140-160 ug/g	Not given	Pleistocene (20-50,000 yr BP) specimens. Femur and two humeri, collected from caves, late 19th century. Significance of sampling techniques, burial site conditions and other geochemical and geographic factors is discussed. France ICP-AES

BONES; FRANCE; POLAND; TERRESTRIAL; BEARS; HORSES; LIONS; DOGS; CATTLE; COMPARATIVE EVALUATIONS; CADMIUM; LEAD; ZINC; BARIUM; MAGNESIUM; CALCIUM; MINERALS

Jaworowski, Z.; Barbalat, F.; Blain, C.; Evelyn Peyre 1985 Science of the Total Environment 43:103-126

Tissue	Cases Exposure Route	Range	Mean	General Information
12195 Bone				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.
12196 Hair				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.
12197 Kidney				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.
12198 Liver				Review, with specific data from studies on equine and bovine tissue (Montana, Missouri, respectively), of Pb mining/smelters in the US and resulting toxicosis. Historical aspects and importance of domestic animals as indicators of contamination noted.

REVIEW; ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; CATTLE; HORSES; MINING; SMELTERS; OCCUPATIONAL HAZARDS; KIDNEYS; LIVER; BONES; HAIR; BLOOD; MONTANA; MISSOURI; UNITED STATES; ZINC; CADMIUM

Burrows, G.E. 1981 Veterinary and Human Toxicology 23(5):337-343

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C
Insect
SIALIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12199 Body		a) Not given b) Not given c) Not given	a) 302 ug/g b) 103 ug/g c) 69 ug/g Dry wt	a) Contaminated, Lake Gruvsjon b) Contaminated, Lake Batviksgolen c) Control, Lake Hammarsjon Neuropteran larvae, 6-14 animals pooled. Sweden, Bersbo area AAS

CADMIUM; ZINC; COPPER; CRAYFISH; HEPATOPANCREAS; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MINING; SWEDEN; AQUATIC; INSECTS; LARVAE
Lundholm, C.E.; Andersson, L. 1985 Ambio 14(3):167-172

Tissue	Cases Exposure Route	Range	Mean	General Information
12200 Liver	a) 5 b) 7	a) 71-210 ppm b) 67-190 ppm Dry wt	a) 106 ppm b) 89.3 ppm Dry wt Geometric	a) Detected in 5/5 composite samples of aquatic insects collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 7/7 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC
Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Isopod
ASELLUS COMMUNIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12201 Body		a) 35-75 ug/g b) 10-60 ug/g c) 30-80 ug/g d) 35-55 ug/g e) 50-60 ug/g f) 25-40 ug/g g) 20-55 ug/g h) 0-35 ug/g Dry wt Ranges of means	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) Animals maintained in water and sediment from Weston's Mill Pond (WMP), pH 5.5 b) In water and sediment from WMP, pH 4.5 c) In water only from WMP, pH 5.5 d) In water only from WMP, pH 4.5 e) In water and sediment from Delaware and Raritan Canal (DRC), pH 5.5 f) In water and sediment, DRC, pH 4.5 g) In water only, DRC, pH 5.5 h) In water only, DRC, pH 4.5 Zn in sediment from WMP 772 ug/g, from DRC 352 ug/g dry wt. Zn in water from WMP 0.12 ug/L, from DRC 0.11 ug/L. Collection on d 2, 5, 10, and 20 followed by 24-hr depuration prior to Zn determinations. Estimated from graph. New Jersey, New Brunswick and Princeton AAS
AQUATIC; DELIBERATE EXPOSURE; LEAD; ZINC; BODY; CRUSTACEANS; WATER POLLUTION; NEW JERSEY; PH; BIOLOGICAL MONITORING Lewis, T.E.; McIntosh, A.W. 1986 Archives of Environmental Contamination and Toxicology 15:495-504				

Killifish
FUNDULUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12202 Body	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 159.0 ug/g b) 202.0 ug/g c) 71.0 ug/g Dry wt	a) Providence Barge, Providence River b) Wickford Tower, Narragansett Bay c) Price Neck, Rhode Island Sound Prey of the common tern collected in 1981 near nesting sites. a) closest to Providence, major area of electroplating industry. Rhode Island AAS
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; FISHES; COPPER; IRON; ZINC; NICKEL; LEAD; CHROMIUM; MAGNESIUM; MANGANESE; BODY; LIVER; WATER POLLUTION; INDUSTRIAL AREAS; INDUSTRIAL POLLUTION; RHODE ISLAND Custer, T.W.; Franson, J.C.; Moore, J.F.; Myers, J.E. 1986 Environmental Pollution (Series A) 41:33-52				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Killifish

FUNDULUS *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
12203 Body, whole				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE

Eisler, R. 1984 Biological Trace Element Research 6:165-180

Knot

CALIDRIS CANUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12204 Feathers	a) 37 b) 25	a) 100-400 mg/kg b) 100-800 mg/kg	a) Not given b) Not given	a) Juveniles b) Adults Includes samples from Schiermonnikoog, Vlieland, Morocco, and Zoological Museum, Amsterdam. Estimated from graph. Dutch Wadden Sea NA
12205 Liver		Not applicable	5.5 mg/kg Dry wt	Estimated from graph. Dutch Wadden Sea NA

FEATHERS; LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; MERCURY; ARSENIC; SELENIUM; ZINC; BIOACCUMULATION; WATER POLLUTION

Goede, A.A. 1985 Environmental Pollution (Series A) 37:287-309

Lion

PANTHERA LEO

Tissue	Cases Exposure Route	Range	Mean	General Information
12206 Bone	1	Not applicable	295 ug/g	Pleistocene (20,000-50,000 yr BP) metacarpal. Collected from cave, late 19th century. Significance of sampling techniques, burial site conditional and other geochemical and geographic factors is discussed. France ICP-AES

BONES; FRANCE; POLAND; TERRESTRIAL; BEARS; HORSES; LIONS; DOGS; CATTLE; COMPARATIVE EVALUATIONS; CADMIUM; LEAD; ZINC; BARIUM; MAGNESIUM; CALCIUM; MINERALS

Jaworowski, Z.; Barbalat, F.; Blain, C.; Evelyn Peyre 1985 Science of the Total Environment 43:103-126

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Lobster

Tissue	Cases Exposure Route	Range	Mean	General Information
12207 Liver				Review dealing with quality of data on trace metals in marine samples.

ENVIRONMENTAL EXPOSURE; AQUATIC; REVIEW; FISHES; LOBSTERS; CRUSTACEANS; MOLLUSKS; SCALLOPS; COPEPODS; MUSCLES; LIVER; BODY; COPPER; ZINC; MERCURY; CADMIUM; LEAD; ARSENIC; METALS; WATER POLLUTION; MEASUREMENT METHODS; TRACE ELEMENTS

Topping, G. 1986 Science of the Total Environment 49:9-25

Lynx, pardel
LYNX PARDINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12208 Liver	5	40.16-88.33 ppm Wet wt	59.46 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
12209 Muscle	5	39.09-95.67 ppm Wet wt	62.92 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION

Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650

Mackerel
SCOMBER JAPONICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12210 Otolith				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE

Eisler, R. 1984 Biological Trace Element Research 6:165-180

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Millipede
POLYDESMIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12211 Body		Not given	980 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Millipedes (unidentified)

Tissue	Cases Exposure Route	Range	Mean	General Information
12212 Body		Not given	320 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Mink
MUSTELA VISON

Tissue	Cases Exposure Route	Range	Mean	General Information
12213 Bone	a) 129 b) 198	a) 54.01-157.53 ug/g b) 79.68-215.74 ug/g Dry wt	a) 118.47+/-1.45 ug/g b) 123.61+/-1.60 ug/g S.E. Dry wt	a) 1981-1982 b) 1982-1983 Trapping season. Collected in southwest, central, north, and east Virginia. Limit of detection 0.1 ug/g dry wt. Virginia AAS
12214 Kidney	a) 108 b) 178	a) 59.99-178.40 b) 48.24-165.28 ug/g Dry wt	a) 88.77+/-1.80 ug/g b) 93.42+/-1.80 ug/g S.E. Dry wt	a) 1981-1982 b) 1982-1983 Trapping season. Collected in southwest, central, north, and east Virginia. Limit of detection 0.1 ug/g dry wt. Virginia AAS

(next page)

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Mink
MUSTELA VISON

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12215 Liver	a) 125 b) 199	a) 64.24-194.44 ug/g b) 54.68-304.17 ug/g Dry wt	a) 102.25+/-2.21 ug/g b) 123.24+/-3.28 ug/g S.E. Dry wt	a) 1981-1982 b) 1982-1983 Trapping season. Collected in southwest, central, north, and east Virginia. Limit of detection 0.1 ug/g dry wt. Virginia AAS

BONES; KIDNEYS; LIVER; MINKS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; VIRGINIA; METAL POISONING; LEAD POISONING; METALS; LEAD; CADMIUM; COPPER; ZINC; BIOACCUMULATION

Ogle, M.C.; Scanlon, P.F.; Kirkpatrick, R.L.; Gwynn, J.V. 1985 Bulletin of Environmental Contamination and Toxicology 35:29-37

Monkey, crab-eating

Tissue	Cases Exposure Route	Range	Mean	General Information
12216 Hair	1	Not applicable	17 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS

Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12217 Body	a) 2 b) 4	a) 120-130 ppm b) 140-160 ppm Dry wt	a) 126 ppm b) 155 ppm Dry wt *Geometric*	a) Detected in 2/2 composite samples collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 4/4 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Food organisms of aquatic birds. California, San Joaquin Valley AAS

BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; SELENIUM; CALIFORNIA; WATER POLLUTION; AGRICULTURE; LIVER; EGGS; WATERFOWL; INSECTS; FISHES; BODY; SELENIUM; SILVER; ARSENIC; BORON; CADMIUM; CHROMIUM; COPPER; MERCURY; MOLYBDENUM; NICKEL; LEAD; ZINC

Ohlendorf, H.M.; Hoffman, D.J.; Saiki, M.K.; Aldrich, T.W. 1986 Science of the Total Environment 52:49-63

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Moth
PAONIAS EXCAECATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12218 Body		Not given	380 mg/kg Dry wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS				
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Moth (L. unipunctata)
LEUCANIA UNIPUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
12219 Body		a) Not given b) Not given	a) 190 mg/kg b) 320 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS				
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Moth, eastern tent caterpillar
MALACOSOMA AMERICANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12220 Body		Not given	150 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS				
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Moth, gypsy
PORTHETRIA DISPAR

Tissue	Cases Exposure Route	Range	Mean	General Information
12221 Body		a) Not given b) Not given	a) 170 mg/kg b) 280 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Caterpillar, collected June-Oct 79. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Moth, noctuid
NOCTUA NIGRUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12222 Body		a) Not given b) Not given	a) 300 mg/kg b) 480 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Moth, pale tiger
HALYSIDOTA TESSELLARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12223 Body		Not given	500 mg/kg Dry wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Moth, tiger

Tissue	Cases Exposure Route	Range	Mean	General Information
12224 Body		Not given	340 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Genera were HALYSIDOTA and SPILOSOMA sp. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
12225 Hair	4	17-19 ug/g	18 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS

Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Mouse, white-footed
PEROMYSCUS LEUCOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12226 Body	a) 9 b) 9	a) Not given b) Not given	a) 145+/-14 mg/kg b) 192+/-24 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Alimentary canals, feet, tails, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Mouse, wood
APODEMUS SYLVATICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12227 Liver	6	42.90-50.24 ppm Wet wt	44.28 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
12228 Muscle	6	31.92-84.61 ppm Wet wt	51.97 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650				

Muskrat
ONDATRA ZIBETHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12229 Liver	a) 10 b) 5 c) 1 d) 2 e) 6 f) 4	a) 19.6-39.6 ppm b) 23.0-35.2 ppm c) Not applicable d) 25.0-25.6 ppm e) 19.7-29.8 ppm f) 24.6-33.1 ppm Wet wt	a) 25.4 ppm b) 29.1 ppm c) 31.1 ppm d) 25.3 ppm e) 25.5 ppm f) 26.9 ppm Wet wt Geometric mean	a) Irondale, Big River b) Deslodge c) Brown's Ford d) Upper River, Black River e) Clearwater Lake f) Lower River Collection sites. Big River polluted by Pb tailings from mining begun in 1700's and continued through 1972. Black River drains currently mined area. Limit of detection 0.1 ppm. Missouri, Big River, Black River ICP-AES
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Mussel

MYTILUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12230 Body	a) 405 b) 630 c) 495 d) 150	a) 116+/-12-198+/-10 ug/g b) 200+/-25-320+/-13 ug/g c) 192+/-13-278+/-6 ug/g d) 83+/-8-148+/-17 ug/g Dry wt	a) Not given b) Not given c) Not given d) Not given	a) Transplanted to bay in 1980 b) Transplanted in 1981 c) Transplanted in 1982 d) From intertidal collection site, not transplanted, range over 1980-2 45-65 mm animals transplanted to 16 sites for 4-5.5 mo. Gonads removed before levels measured. California, San Francisco Bay

ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; MUSSELS; BODY; AQUATIC; WATER POLLUTION; METALS; SILVER; ALUMINUM; CADMIUM; CHROMIUM; COPPER; MERCURY; MANGANESE; LEAD; ZINC; CALIFORNIA

Smith, D.R.; Stephenson, M.D.; Flegal, A.R. 1986 Environmental Toxicology and Chemistry 5:129-138

Mussel, blue

MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12231 Body		a) 29.3-56.2 ug/g b) 29.0-214 ug/g Dry wt	a) 41.1 ug/g b) 167 ug/g Dry wt	a) Gonadal tissue, range: values at 9/1/81 and 2/17/81 b) Somatic tissue, range: values at 7/8/81 and 12/17/80 All values calculated by extractor from total burdens and wt given in table. Total of 11 collections at uncontaminated site 9/80-9/81. Levels varied with season and reproductive state. Gametogenesis and spawning in 4 and 7/81. Oregon, Newport, Yaquina Bay AAS

ENVIRONMENTAL EXPOSURE; MUSSELS; MOLLUSKS; AQUATIC; BODY; GONADS; MANGANESE; NICKEL; COPPER; ZINC; CADMIUM; ARSENIC; WATER POLLUTION; METALS; OREGON

La Touche, Y.D.; Mix, M.C. 1982 Bulletin of Environmental Contamination and Toxicology 29:665-670

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12232 Body		a) 76-234 mg/kg b) 50-236 mg/kg c) 99-290 mg/kg d) 45-215 mg/kg e) 100-211 mg/kg f) 57-227 mg/kg g) 99-318 mg/kg h) 80-284 mg/kg	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 1980, April b) October c) 1981, April d) October e) 1982, April f) October g) 1983, April h) October Extremes from sampling locations distributed over the Waddensee, coastal North Sea and Ems' estuaries, Western and Eastern Scheldt. Range of medians was 87-234 mg/kg. Netherlands AAS
ENVIRONMENTAL EXPOSURE; AQUATIC; MOLLUSKS; MUSSELS; MERCURY; LEAD; CADMIUM; COPPER; ZINC; BODY; METALS; WATER POLLUTION; NETHERLANDS Luten, J.B.; Bouquet, W.; Burggraaf, M.M.; Rauchbaar, A.B.; Rus, J. 1986 Bulletin of Environmental Contamination and Toxicology 36:770-777				

Tissue	Cases Exposure Route	Range	Mean	General Information
12233 Body	21	8.1-33 mg/kg Wet wt	19 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Eastern Scheldt, 1977. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Tissue	Cases Exposure Route	Range	Mean	General Information
12234 Gills	a) 15 b) 14	a) 111-603 ug/g b) 178-1876 ug/g Dry wt	a) 455+/-227 ug/g b) 948+/-541 ug/g Dry wt	a) Rocky Point, relatively unpolluted b) Seabus, near outfall of storm water drainage system Both sites in Burrard Inlet. Collections over 12 mo beginning 1/79. Levels correlated with those in seawater. Seasonal variations. Canada, British Columbia X-ray spectrom

(next page)

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Mussel, blue
MYTILUS EDULIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12235 Viscera	a) 15 b) 14	a) 126-295 ug/g b) 212-1708 ug/g Dry wt	a) 186+/-54 ug/g b) 662+/-434 ug/g Dry wt	a) Rocky Point, relatively unpolluted b) Seabus, near outfall of storm water drainage system Both sites in Burrard Inlet. Collections over 12 mo beginning 1/79. Levels correlated with those in seawater. Seasonal variations. Canada, British Columbia X-ray spectrom

ENVIRONMENTAL EXPOSURE; AQUATIC; VISCERA; GILLS; MOLLUSKS; WATER POLLUTION; METALS; LEAD; COPPER; ZINC; IRON; MANGANESE; CANADA
Popham, J.D.; D'Auria, J.M. 1982 Archives of Environmental Contamination and Toxicology 11:273-282

Oriole, orchard
ICTERUS SPURIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12236 Body	1	Not applicable	160 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Alimentary canal, feet, tail, beak, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12237 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE
Eisler, R. 1984 Biological Trace Element Research 6:165-180

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Otter
LUTRA LUTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
12238 Liver	5	31.59-50.88 ppm Wet wt	40.09 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
12239 Muscle	5	26.97-45.40 ppm Wet wt	34.99 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION

Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650

Ovenbird
SEIURUS AUROCAPILLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12240 Body	2	76-170 mg/kg Dry wt	123 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Oyster

Tissue	Cases Exposure Route	Range	Mean	General Information
12241 Muscle	a) 20 b) 18 c) 19	a) 0.49-1.562 mg/kg b) 0.315-1.573 mg/kg c) 0.128-1.386 mg/kg	a) 1.27 mg/kg b) 0.905 mg/kg c) 0.618 mg/kg	a) Mount Pleasant b) Charleston c) Beaufort Collection sites, summers of 1983, '84. Assessment of magnitude & distribution of Zn. Levels not high enough to be hazardous for human consumption. South Carolina, coast AAS

ENVIRONMENTAL EXPOSURE; AQUATIC; OYSTERS; MUSCLES; ZINC; BIOACCUMULATION; WATER POLLUTION; SOUTH CAROLINA
Koli, A.K.; Whitmore, R.; Lester, L.C. 1986 Bulletin of Environmental Contamination and Toxicology 36:895-899

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12242 Body		a) 127+/-170-373+/-42 mg/kg b) 383+/-49-580+/-111 mg/kg c) 206+/-163-343+/-25 mg/kg d) 400+/-72-747+/-196 mg/kg e) 132+/-105-269+/-183 mg/kg f) 350+/-10-423+/-146 mg/kg	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Palmetto Bay Marina, spring, 10 stations b) Summer c) Outdoor Resorts Marina, spring, 8 stations d) Summer e) Fripp Island Marina, spring, 9 stations f) Summer Collected from mid-intertidal portion of reefs. 15 animals/sample. Sampled weekly 3/29-4/4 and 7/26-8/11/83. South Carolina AAS

ENVIRONMENTAL EXPOSURE; AQUATIC; OYSTERS; MOLLUSKS; BODY; CADMIUM; CHROMIUM; COPPER; LEAD; NICKEL; ZINC; METALS; WATER POLLUTION; SOUTH CAROLINA
Marcus, J.M.; Thompson, A.M. 1986 Bulletin of Environmental Contamination and Toxicology 36:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
12243 Body		Not given	10900+/-3500 ppm Dry wt	Samples collected from entrance of the Inner Harbor Navigation Canal at Lake Pontchartrain, 5/80-6/80. Louisiana, Lake Pontchartrain AAS

MOLLUSKS; TRACE ELEMENTS; BODY; ENVIRONMENTAL EXPOSURE; ARSENIC; LOUISIANA; BERYLLIUM; COPPER; CADMIUM; LEAD; MERCURY; NICKEL; THALLIUM; SELENIUM; CHROMIUM; SILVER; ZINC; AQUATIC; COMPARATIVE EVALUATIONS
Byrne, C.J.; DeLeon, I.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:151-158

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Oyster, cape
CRASSOSTREA MARGARITACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12244 Body	426 (approx)	28-1202+/-571 ug/g Wet wt	Not applicable	Range of means. From survey of metal levels in oysters collected 7/77-8/79 at 25 sites along 500 km of relatively undeveloped coastline from near Mossel Bay to the Port Alfred area. Study provided data for the national marine pollution monitoring program. South Africa, southern coast AAS
ENVIRONMENTAL EXPOSURE; AQUATIC; OYSTERS; BODY; ZINC; CADMIUM; COPPER; LEAD; IRON; MANGANESE; NICKEL; COBALT; CHROMIUM; SOUTH AFRICA; WATER POLLUTION; METALS Watling, H.R.; Watling, R.J. 1982 Bulletin of Environmental Contamination and Toxicology 28:460-466				

Oyster, Pacific
CRASSOSTREA GIGAS

Tissue	Cases Exposure Route	Range	Mean	General Information
12245 Body	a) 328 b) 226	a) 240-810 ug/g b) 269-662 ug/g Wet wt	a) 499 ug/g b) 419 ug/g Wet wt	a) Collected live from 8 sites in bay b) Collected from 10 stalls in Lau Fau Shan Market Ranges of means from table means given here calculated by extractor. China, Hong Kong, New Territories (NW), Deep Bay AAS
ENVIRONMENTAL EXPOSURE; BODY; OYSTERS; ARSENIC; CADMIUM; COPPER; LEAD; MERCURY; ZINC; METALS; WATER POLLUTION; CHINA; MOLLUSKS Phillips, D.J.H.; Ho, C.T.; Ng, L.H. 1982 Archives of Environmental Contamination and Toxicology 11:533-537				

Pelican, brown
PELECANUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12246 Bone	a) 10 b) 10	a) Not given b) Not given	a) 108.1+/-13.0 ppm b) 104.5+/-9.4 ppm Dry wt	a) Humerus b) Ribs Specimens collected on 11/30 and 12/1/80 in vicinity of Bahia de los Angeles, Gulf of California. Detection limit=0.1 ppm wet wt. California AAS
12247 Feathers	10	Not given	65.9+/-15.9 ppm Dry wt	9 shot in vicinity of Bahia de los Angeles, Gulf of California, on 11/30/80 or 12/1/80. 1 bird found dead at Anacapa Island, CA on 7/28/80. Detection limit=0.1 ppm wet wt. California AAS

(next page)

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Pelican, brown
PELECANUS OCCIDENTALIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12248 Kidney	10	Not given	77.2+/-12.2 ppm Dry wt	9 shot in vicinity of Bahia de los Angeles, Gulf of California, on 11/30/80 or 12/1/80. 1 bird found dead at Anacapa Island, CA on 7/28/80. Detection limit=0.1 ppm wet wt. California AAS
12249 Liver	10	Not given	98.1+/-27.3 ppm Dry wt	9 shot in vicinity of Bahia de los Angeles, Gulf of California, on 11/30/80 or 12/1/80. 1 bird found dead at Anacapa Island, CA on 7/28/80. Detection limit=0.1 ppm wet wt. California AAS
12250 Pancreas	8	Not given	96.8+/-35.9 ppm Dry wt	Specimens collected on 30 November and 1 December 1980 in vicinity of Bahia de los Angeles, Gulf of California. Detection limit=0.1 ppm wet wt. California AAS

ADIPOSE TISSUE; MUSCLES; BODY; LIVER; KIDNEYS; FEATHERS; BONES; PANCREAS; GONADS; PELICANS; AQUATIC; ENVIRONMENTAL EXPOSURE; CALIFORNIA; METAL POISONING; ARSENIC; CADMIUM; CHROMIUM; COPPER; MERCURY; LEAD; SELENIUM; ZINC; DDE; BIOACCUMULATION

Ohlendorf, H.M.; Anderson, D.; Boellstorff, D.E.; Mulhern, B.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:188-192

Pig, miniature

Tissue	Cases Exposure Route	Range	Mean	General Information
12251 Hair	1	Not applicable	15 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS

Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
12252 Body	a) 19 b) 3	a) 3.4-12 mg/kg b) 3.4-4.8 mg/kg Wet wt	a) 5.6 mg/kg b) 3.9 mg/kg Wet wt	a) Collected 1978-1984, Lake IJssel b) Collected 1982-84, Hollands Diep Edible parts, mixed samples weighing about 20 kg. Collected from Lake IJssel, 1980-84. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Plaice
PLEURONECTES PLATESSA

Tissue	Cases Exposure Route	Range	Mean	General Information
12253 Body	14	4.6-9.9 mg/kg Wet wt	6.6 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978-81. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Tissue	Cases Exposure Route	Range	Mean	General Information
12254 Body, whole				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Rabbit

Tissue	Cases Exposure Route	Range	Mean	General Information
12255 Hair	6	23-28 ug/g	26 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS

Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218

Tissue	Cases Exposure Route	Range	Mean	General Information
12256 Heart	a) 8 b) 8 Ingestion	a) Not given b) Not given	a) 18.9+/-1.9 ug/g b) 18.3+/-0.9 ug/g S.E. Wet wt	a) Controls, unexposed b) Received 20 ug/ml Ca as Cd-Cl2 in drinking water for 9 mo. Evaluation of mechanisms which regulate cardiovascular homeostasis. Male New Zealand rabbits, 3 mo old. Specific, multiple effects on cardiovascular system. AAS
12257 Kidney	a) 8 b) 8 Ingestion	a) Not given b) Not given	a) 22.7+/-1.3 ug/g b) 32.6+/-2.1 ug/g S.E. Wet wt	a) Controls, unexposed b) Received 20 ug/ml Ca as Cd-Cl2 in drinking water for 9 mo. Evaluation of mechanisms which regulate cardiovascular homeostasis. Male New Zealand rabbits, 3 mo old. Specific, multiple effects on cardiovascular system. AAS

DELIBERATE EXPOSURE; CADMIUM; ZINC; COPPER; INGESTION; KIDNEYS; HEART; CARDIAC EFFECTS; HYPERTENSION; CARDIOVASCULAR EFFECTS; RABBITS

Boscolo, P.; Carmignani, M. 1986 British Journal of Industrial Medicine 43:605-610

Tissue	Cases Exposure Route	Range	Mean	General Information
12258 Liver	5	54.05-69.02 ppm Wet wt	61.08 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Rabbit

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12259 Muscle	5	9.40-22.90 ppm Wet wt	13.44 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION Hernandez, L.M.; Gonzalez, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650				

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
12260 Hair	2	19-19 ug/g	19 ug/g	Domestic animals, Part of study dealing with characteristics of metal accumulation in fur of domestic and experimental animals. Values estimated from graph.
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; HAIR; COPPER; IRON; MERCURY; ZINC; MANGANESE; CATS; DOGS; GUINEA PIGS; HAMSTERS; RATS; MICE; RABBITS; GOATS; PIGS; MONKEYS; NORWAY; JAPAN; PHILIPPINES; BIOLOGICAL MONITORING; BIOACCUMULATION; METALS Doi, R.; Nakaya, K.; Ohno, H.; Yamashita, K.; Kobayashi, T.; Kasai, S. 1986 Bulletin of Environmental Contamination and Toxicology 37:213-218				

Rat, brown
RATTUS NORVERGICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12261 Liver	5	23.61-38.42 ppm Wet wt	30.11 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Rat, brown
RATTUS NORVERGICUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12262 Muscle	5	23.57-38.90 ppm Wet wt	30.28 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.006 ppm. Part of study of organochlorine and heavy metal levels in 10 mammalian species. Throughout study, levels in general were low enough not to affect survival/reproduction with exceptions, in some samples, of DDE, DDT, PCB, Hg. Spain AAS

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; LIVER; MUSCLES; RABBITS; DEER; BOARS; HEDGEHOGS; RATS; MICE; OTTERS; LYNX; PESTICIDES; METALS; DDE; DDT; POLYCHLORINATED BIPHENYLS; HEXACHLOROCYCLOHEXANE; MERCURY; CADMIUM; LEAD; COPPER; ZINC; SPAIN; BIOACCUMULATION; MAMMALS; ANIMAL POPULATIONS; BIOMAGNIFICATION
Hernandez, L.M.; Gonzales, M.J.; Rico, M.C.; Fernandez, M.A.; Baluja, G. 1985 Journal of Environmental Science and Health B20(6):633-650

Redshank, Icelandic
TRINGA TOTANUS ROBUSTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12263 Feathers	a) 6 b) 23	a) 100-600 mg/kg b) 100-300 mg/kg	a) Not given b) Not given	a) Juveniles b) Adults Includes samples from Schiermonnikoog and Vlieland. Estimated from graph. Dutch Wadden Sea NA

FEATHERS; LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; MERCURY; ARSENIC; SELENIUM; ZINC; BIOACCUMULATION; WATER POLLUTION
Goede, A.A. 1985 Environmental Pollution (Series A) 37:287-309

Robin, American
TURDUS MIGRATORIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12264 Body	6	93-150 mg/kg Dry wt	Not given	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Salamander, red-backed

PLETHODON CINEREUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12265 Body, whole	a) 6 b) 1	a) Not given b) Not applicable	a) 130 mg/kg b) 67 mg/kg Dry wt	a) Pooled specimens b) Single specimen Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. None observed at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Salamander, slimy

PLETHODON GLUTINOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12266 Body, whole	a) 2 b) 2	a) Not given b) 140-170 mg/kg Dry wt	a) 82 mg/kg b) 155 mg/kg Dry wt	a) Pooled specimens b) Analyzed individually Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. None observed at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Scallop

PLACOPECTEN MAGELLANICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12267 Gills	38	Not given	92 ug/g Dry wt	From Georges Bank, Browns Bank, and off Navy Island near St. Andrews. Size 70-126 mm. Canada, New Brunswick AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Scallop
PLACOPECTEN MAGELLANICUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12268 Mantle	38	Not given	134 ug/g	From Georges Bank, Browns Bank, and off Navy Island near St. Andrews. Size 70-126 mm. Canada, New Brunswick AAS
12269 Muscle	38	a) Not given b) Not given c) Not given d) Not given	a) 85 ug/g b) 112 ug/g c) 70 ug/g d) 65 ug/g Dry wt	a) All sites b) Browns Bank c) Off Navy Island d) Georges Bank Size 70-126 mm. Canada, New Brunswick AAS

MUSCLES; GILLS; MANTLE; VISCERA; SCALLOPS; AQUATIC; ENVIRONMENTAL EXPOSURE; CANADA; COPPER; CADMIUM; LEAD; ZINC; BIOCONCENTRATION
Ray, S.; Woodside, M.; Jerome, V.E.; Akagi, H. 1984 Chemosphere 13(11):1247-1254

Tissue	Cases Exposure Route	Range	Mean	General Information
12270 Muscle				Review dealing with quality of data on trace metals in marine samples.

ENVIRONMENTAL EXPOSURE; AQUATIC; REVIEW; FISHES; LOBSTERS; CRUSTACEANS; MOLLUSKS; SCALLOPS; COPEPODS; MUSCLES; LIVER; BODY; COPPER; ZINC; MERCURY; CADMIUM; LEAD; ARSENIC; METALS; WATER POLLUTION; MEASUREMENT METHODS; TRACE ELEMENTS
Topping, G. 1986 Science of the Total Environment 49:9-25

Tissue	Cases Exposure Route	Range	Mean	General Information
12271 Viscera	38	a) Not given b) Not given c) Not given d) Not given	a) 132 ug/g b) 191 ug/g c) 88 ug/g d) 101 ug/g Dry wt	a) All sites b) Browns Bank c) Off Navy Island d) Georges Bank Size 70-126 mm. Canada, New Brunswick AAS

MUSCLES; GILLS; MANTLE; VISCERA; SCALLOPS; AQUATIC; ENVIRONMENTAL EXPOSURE; CANADA; COPPER; CADMIUM; LEAD; ZINC; BIOCONCENTRATION
Ray, S.; Woodside, M.; Jerome, V.E.; Akagi, H. 1984 Chemosphere 13(11):1247-1254

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sea lion, California
ZALOPHUS CALIFORNIANNUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12272 Kidney				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
12273 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Seal, harbor
PHOCA VITULINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12274 Brain				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Tissue	Cases Exposure Route	Range	Mean	General Information
12275 Kidney	15	26.0-54.4 ug/g Wet wt	35.2+/-8.3 ug/g Wet wt	Collected 4/10/84 in ice drift area. Males and females, body length mean of 129+/-19 cm, range 90-152 cm. Japan, Hokkaido, Monbetsu City, Okhotsk Sea ICP-AES
ENVIRONMENTAL EXPOSURE; AQUATIC; SEALS; JAPAN; LIVER; KIDNEYS; METALS; CADMIUM; COPPER; ZINC; MERCURY; METALLOTHIONEIN; AGE Tohyama, C.; Himeno, S.-I.; Watanabe, C.; Suzuki, T.; Morita, M. 1986 Ecotoxicology and Environmental Safety 12:85-94				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Seal, harbor
PHOCA VITULINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12276 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Tissue	Cases Exposure Route	Range	Mean	General Information
12277 Liver	15	39.5-56.9 ug/g Wet wt	47.1+/-5.6 ug/g Wet wt	Collected 4/10/84 in ice drift area. Males and females, body length mean of 129+/-19 cm, range 90-152 cm. Japan, Hokkaido, Monbetsu City, Okhotsk Sea ICP-AES
ENVIRONMENTAL EXPOSURE; AQUATIC; SEALS; JAPAN; LIVER; KIDNEYS; METALS; CADMIUM; COPPER; ZINC; MERCURY; METALLOTHIONEIN; AGE Tohyama, C.; Himeno, S.-I.; Watanabe, C.; Suzuki, T.; Morita, M. 1986 Ecotoxicology and Environmental Safety 12:85-94				

Shad, American
ALOSA SAPIDISSIMA

Tissue	Cases Exposure Route	Range	Mean	General Information
12278 Gonads	5	9.9-23.0 ug/g	14.22 ug/g	Collected May, 1979, waters of Hartford County. Detection limit 1.0. Part of study to measure contamination levels of the aquatic ecosystem and to develop baseline data for reference in determining suitablitiy for human consumption of various species. Maryland, Chesapeake Bay and tributaries AAS
12279 Muscle	5	2.9-3.8 ug/g	3.4 ug/g	Collected May, 1979, waters of Hartford County. Detection limit 1.0. Part of study to measure contamination levels of the aquatic ecosystem and to develop baseline data for reference in determining suitablitiy for human consumption of various species. Maryland, Chesapeake Bay and tributaries AAS
ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; COPPER; ZINC; LEAD; MERCURY; CADMIUM; CHROMIUM; ARSENIC; MUSCLES; GONADS; LIVER; METALS; CHESAPEAKE BAY; MARYLAND; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING Eisenberg, M.; Topping, J.J. 1986 Journal of Environmental Science and Health B21(1):87-102				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12280 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 17.83 ug/g b) 19.50 ug/g c) 27.53 ug/g d) 17.96 ug/g e) 22.00 ug/g f) 18.27 ug/g g) 24.30 ug/g h) 22.70 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Lake Fausse Point c) Little Pigeon Bayou d) Grand Lake e) Henderson Lake f) Bayou Petite Prairie g) Spring Bayou h) Raccouri Old River Collected 6/81. Louisiana, Atchafalaya River Basin ES
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Shark, sandbar
CARCHARHINUS MILBERTI

Tissue	Cases Exposure Route	Range	Mean	General Information
12281 Bone				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

Shearwater, Cory's
CALONECTRIS DIOMEDEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12282 Adipose	a) 5 b) 5 c) 5	a) Not given b) Not given c) Not given	a) 23.79+/-4.00 ug/g b) 15.20+/-5.50 ug/g c) 9.04+/-3.20 ug/g Dry wt	a) Majorca Island, Mediterranean, 5/84 b) Linosa Island, Mediterranean, 5/82 c) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Shearwater, Cory's
CALONECTRIS DIOMEDEA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12283 Brain	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 45.69+/-18.43 ug/g b) 53.11+/-17.66 ug/g c) 84.11+/-28.48 ug/g d) 54.56+/-6.89 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
12284 Eggs	a) 20 b) 10 d) 11 d) 2	a) Not given b) Not given c) Not given d) 64.2-69.1 ug/g Dry wt	a) 86.5+/-9.1 ug/g b) 37.3+/-4.5 ug/g c) 46.4+/-10.2 ug/g d) 66.7 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
12285 Kidney	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 134.53+/-25.39 ug/g b) 100.66+/-17.14 ug/g c) 101.65+/-13.95 ug/g d) 147.14+/-10.69 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
12286 Liver	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 117.85+/-17.88 ug/g b) 138.33+/-40.02 ug/g c) 118.77+/-984.66 ug/g d) 181.38+/-62.89 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
12287 Muscle	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 74.71+/-17.94 ug/g b) 55.67+/-9.99 ug/g c) 56.91+/-7.12 ug/g d) 75.56+/-13.75 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS

(next page)

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Shearwater, Cory's
CALONECTRIS DIOMEDEA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12288 Uropygial gland	a) 8 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 31.61+/-2.49 ug/g b) 54.09+/-6.82 ug/g c) 35.16+/-0.44 ug/g d) 17.81+/-15.93 ug/g Dry wt	a) Selvagen Island, Atlantic, 4/83 b) Majorca Island, Mediterranean, 5/84 c) Linosa Island, Mediterranean, 5/82 d) Crete Island, Mediterranean, 4/83 Adults. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
ENVIRONMENTAL EXPOSURE; BIRDS; ATLANTIC OCEAN; MEDITERRANEAN SEA; AQUATIC; EGGS; BRAIN; MUSCLES; KIDNEYS; LIVER; UROPYGIAL GLAND; ADIPOSE TISSUE; MERCURY; CADMIUM; LEAD; ZINC; SELENIUM; HEXACHLOROBENZENE; DDE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; WATER POLLUTION; METALS; PESTICIDES Renzoni, A.; Focardi, S.; Fossi, C.; Leonzio, C.; Mayol, J. 1986 Environmental Pollution (Series A) 40:17-35				

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12289 Blood, plasma	a) 7 b) 15 Ingestion	a) Not given b) Not given	a) 0.97+/-0.60 ug/g b) 0.81+/-0.24 ug/g Wet wt	a) Facility A. Constant, low Cu levels (0.030+/-0.005 ug/g) in water b) Facility B. Fluctuating Cu levels (range 0.08-3.0 ug/g) in water with gradient in copper pipes of 0.35 ug/mL at beginning to 1.0 ug/mL at end. Increased mortality in Facility B inappetence, hemoglobinemia, hemoglobinuria AAS
ENVIRONMENTAL EXPOSURE; COPPER; ZINC; MANGANESE; IRON; TERRESTRIAL; WATER POLLUTION; DRINKING WATER; ANIMAL FEEDS Clegg, M.S.; Casey, S.M.; Keen, C.L. 1986 Agri-Practice 7(1):19-22				

Tissue	Cases Exposure Route	Range	Mean	General Information
12290 Blood, whole	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 4.0+/-0.2 ug/ml b) 4.0+/-0.2 ug/ml c) 4.4+/-0.2 ug/ml d) 4+/-0.1 ug/ml e) 4+/-0.1 ug/ml f) 4+/-0.1 ug/ml g) 4+/-0.2 ug/ml h) 4+/-0.2 ug/ml i) 4+/-0.2 ug/ml S.E.	a) 3 d after lambing, complete pelleted basal diet, 5 cases b) Diet fortified with CSM (3.5% cottonseed meal), 5 cases c) Diet fortified with SS (7% dried sewage solids), 5 cases d) 42 d after lambing, basal diet e) With CSM f) With SS g) At slaughter, 40 d after weaning, basal diet h) With CSM i) With SS Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS

(next page)

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12291 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 32+/-4 ug/g b) 37+/-4 ug/g c) 28+/-4 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE
Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424

Tissue	Cases Exposure Route	Range	Mean	General Information
12292 Brain	a) 7 b) 15 Ingestion	a) Not given b) Not given	a) 13.5+/-1.5 ug/g b) 13.2+/-1.3 ug/g Wet wt	a) Facility A. Constant, low Cu levels (0.030+/-0.005 ug/g) in water b) Facility B. Fluctuating Cu levels (range 0.08-3.0 ug/g) in water with gradient in copper pipes of 0.35 ug/mL at beginning to 1.0 ug/mL at end. Increased mortality in Facility B. Inappetence, hemoglobinemia, hemoglobinuria AAS

ENVIRONMENTAL EXPOSURE; COPPER; ZINC; MANGANESE; IRON; TERRESTRIAL; WATER POLLUTION; DRINKING WATER; ANIMAL FEEDS
Clegg, M.S.; Casey, S.M.; Keen, C.L. 1986 Agri-Practice 7(1):19-22

Tissue	Cases Exposure Route	Range	Mean	General Information
12293 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 32+/-1 ug/g b) 27+/-1 ug/g c) 31+/-1 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE
Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12294 Kidney	a) 7 b) 15 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 22.1+/-2.5 ug/g b) 20.5+/-2.1 ug/g c) 14.5+/-6.5 ug/g d) 10.9+/-2.0 ug/g Wet wt	a) Cortex. Facility A. Constant, low Cu levels (0.030+/-0.005 ug/g) in water b) Facility B. Fluctuating Cu levels (range 0.08-3.0 ug/g) in water with gradient in copper pipes of 0.35 ug/mL at beginning to 1.0 ug/mL at end c) Facility A. Medulla d) Facility B. Medulla. *Increased mortality in Facility B. Inappetence, hemoglobinemia, hemoglobinuria* AAS
ENVIRONMENTAL EXPOSURE; COPPER; ZINC; MANGANESE; IRON; TERRESTRIAL; WATER POLLUTION; *DRINKING WATER; ANIMAL FEEDS* Clegg, M.S.; Casey, S.M.; Keen, C.L. 1986 Agri-Practice 7(1):19-22				

Tissue	Cases Exposure Route	Range	Mean	General Information
12295 *Kidney*	a) 3 b) 3 c) 3 d) 3 e) 3 f) 3 g) 3 h) 3 i) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given h) Not given i) Not given	a) 2.1 mmol/kg b) 1.8 mmol/kg c) 2.0 mmol/kg d) 2.3 mmol/kg e) 1.9 mmol/kg f) 1.9 mmol/kg g) 2.0 mmol/kg h) 1.6 mmol/kg i) 1.6 mmol/kg	a) At 24 wk, grazing 6 km from smelter b) 18 km c) 40 km d) At 50 wk, grazing 6 km from smelter e) 18 km f) 40 km g) At 98 wk, grazing 6 km from smelter h) 18 km i) 40 km Data from additional times and distances included. Pb/Zn smelting complex with soil contamination. 1978-79. Cortex. Australia, South Australia, Port Pirie
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; COPPER; LEAD; CADMIUM; ZINC; BLOOD; BLOOD PLASMA; KIDNEYS; LIVER; BONES; SHEEP; SMELTERS; LAND POLLUTION; AUSTRALIA Koh, T.-S., Judson, G.J. 1986 Bulletin of Environmental Contamination and Toxicology 37:87-95				

Tissue	Cases Exposure Route	Range	Mean	General Information
12206 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 39+/-3 ug/g b) 41+/-3 ug/g c) 35+/-3 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424				

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12297 Liver	a) 7 b) 15 Ingestion	a) Not given b) Not given	a) 36.0+/-4.5 ug/g b) 37.7+/-11.5 ug/g Wet wt	a) Facility A. Constant, low Cu levels (0.030+/-0.005 ug/g) in water b) Facility B. Fluctuating Cu levels (range 0.08-3.0 ug/g) in water with gradient in copper pipes of 0.35 ug/mL at beginning to 1.0 ug/mL at end. Increased mortality in Facility B. Inappetence, hemoglobinemia, hemoglobinuria AAS

ENVIRONMENTAL EXPOSURE; COPPER; ZINC; MANGANESE; IRON; TERRESTRIAL; WATER POLLUTION; DRINKING WATER; ANIMAL FEEDS

Clegg, M.S.; Casey, S.M.; Keen, C.L. 1986 Agri-Practice 7(1):19-22

Tissue	Cases Exposure Route	Range	Mean	General Information
12298 Liver	a) 3 b) 3 c) 3 d) 3 e) 3 f) 3 g) 3 h) 3 i) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given h) Not given i) Not given	a) 2.0 mmol/kg b) 1.9 mmol/kg c) 2.1 mmol/kg d) 1.9 mmol/kg e) 2.1 mmol/kg f) 2.3 mmol/kg g) 1.7 mmol/kg h) 1.7 mmol/kg i) 1.7 mmol/kg	a) At 24 wk, grazing 6 km from smelter b) 18 km c) 40 km d) At 50 wk, grazing 6 km from smelter e) 18 km f) 40 km g) At 98 wk, grazing 6 km from smelter h) 18 km i) 40 km Data from additional times and distances included. Pb/Zn smelting complex with soil contamination. 1978-79. Australia, South Australia, Port Pirie

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; COPPER; LEAD; CADMIUM; ZINC; BLOOD; BLOOD PLASMA; KIDNEYS; LIVER; BONES; SHEEP; SMELTERS; LAND POLLUTION; AUSTRALIA

Koh, T.-S.; Judson, G.J. 1986 Bulletin of Environmental Contamination and Toxicology 37:87-95

Tissue	Cases Exposure Route	Range	Mean	General Information
12299 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1+/-0.2 ug/g b) 1+/-0.2 ug/g c) 1+/-0.2 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12300 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 31+/-2 ug/g b) 28+/-2 ug/g c) 33+/-2 ug/g S.E. Dry wt	a) Complete pelleted basal diet b) Diet fortified with 3.5% cottonseed meal c) Diet fortified with 7% dried primary municipal sewage solids from Las Cruces, NM At slaughter. Fine-wool ewes, fed given diets for 2 yr. AAS
SHEEP; BLOOD; BLOOD SERUM; MILK; LIVER; KIDNEYS; SPLEEN; BONES; MUSCLES; TERRESTRIAL; ADULTS; COMPARATIVE EVALUATIONS; CALCIUM; COBALT; COPPER; IRON; POTASSIUM; MAGNESIUM; MANGANESE; SODIUM; PHOSPHORUS; ZINC; CADMIUM; NICKEL; LEAD; CHLORINE; ANIMAL FEEDS; BIOLOGICAL MONITORING; DIETS; MEAT; DELIBERATE EXPOSURE Sanson, D.W.; Hallford, D.M.; Smith, G.S. 1984 Journal of Animal Science 59(2):416-424				

Shrew, short-tailed
BLARINA BREVICAUDA

Tissue	Cases Exposure Route	Range	Mean	General Information
12301 Body	a) 13 b) 7	a) Not given b) Not given	a) 201+/-23 mg/kg b) 377 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Alimentary canals, feet, tails, skin not included. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Shrimp
PALAEMON ELEGANS

Tissue	Cases Exposure Route	Range	Mean	General Information
12302 Body				Review. Biology of heavy metals in marine organisms discussed - including uptake, accumulation, toxicity, and possible detoxification mechanisms.
REVIEW; ENVIRONMENTAL EXPOSURE; AQUATIC; CRUSTACEANS; BODY; ZINC; COPPER Rainbow, P.S. 1985 International Journal of Environmental Studies 25:195-211				

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Shrimp

PALAEMON ELEGANS

Tissue	Cases Exposure Route	Range	Mean	General Information
12303 Body	21	19-48 mg/kg Wet wt	27 mg/kg Wet wt	Analyzed cooked and unpeeled. Mixed samples weighed about 20 kg. Collected from Western Wadden Sea, 1977. Netherlands AAS

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY

Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40

Slug

PHILOMYCUS CAROLINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12304 Body, whole		Not given	480 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Slugs not observed at Palmerton, 2 km downwind. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE, MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE, SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Snake, northern water

NERODIA SIPEDON

Tissue	Cases Exposure Route	Range	Mean	General Information
12305 Body	a) 15 b) 15 c) 14 d) 11 e) 9 f) 15	a) 18.4-42.6 ppm b) 26.9-63.2 ppm c) 23.9-46.2 ppm d) 27.9-51.3 ppm e) 28.1-42.0 ppm f) 19.7-47.0 ppm Wet wt	a) 29.0 ppm b) 37.6 ppm c) 37.1 ppm d) 37.2 ppm e) 36.4 ppm f) 31.6 ppm Wet wt Geometric mean	a) Irondale, Big River b) Deslodge c) Brown's Ford d) Upper River, Black River e) Clearwater Lake f) Lower River Collection sites. Big River polluted by Pb tailings from mining begun in 1700's and continued through 1972. Black River drains currently mined area. Limit of detection 0.1 ppm. Missouri, Big River, Black River ICP-AES

Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sole
SOLEA SOLEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12306 Body	22	3.4-11 mg/kg Wet wt	5.7 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1977. Netherlands AAS
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; CRUSTACEANS; MOLLUSKS; LEAD; CADMIUM; MERCURY; SELENIUM; ARSENIC; NICKEL; CHROMIUM; ZINC; COPPER; TRACE ELEMENTS; BIOINDICATORS; BODY Vos, G.; Hovens, J.P.C.; Hagel, P. 1986 Science of the Total Environment 52:25-40				

Sparrow, field
SPIZELLA PUSILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
12307 Body	1	Not applicable	170 mg/kg Dry wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Alimentary canal, feet, tail, beak, skin not included. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS, MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
12308 Body		125-575 ug/g Dry wt	270 ug/g Dry wt	Collected during 1978-80 *Levels higher during post monsoon (Oct-Jan). High degree of species specificity for certain elements.* India, Bombay, Tarapur coast X-ray spectrom
BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
12309 Body		50-250 ug/g Dry wt	115 ug/g Dry wt	Collected during 1978-80 Levels higher during post-monsoon (Oct-Jan). India, Bombay, Tarapur coast X-ray spectrom

BODY; AQUATIC; SPONGES; ENVIRONMENTAL EXPOSURE; INDIA; METALS; HALOGENS; CHROMIUM; NICKEL; IRON; TITANIUM; ZINC; CADMIUM; TIN; STRONTIUM; COBALT; MOLYBDENUM; LEAD; MANGANESE; COPPER; VANADIUM; ALUMINUM; IODINE; BROMINE; SODIUM; POTASSIUM; CALCIUM; MAGNESIUM; WATER POLLUTION; BIOACCUMULATION; BIOLOGICAL MONITORING; BIOCONCENTRATION; BIOINDICATORS
Patel, B.; Balani, M.C.; Patel, S. 1985 Science of the Total Environment 41:143-152

Stickleback
GASTEROSTEUS ACULEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12310 Body		Not given	425 ug/g Dry wt	Collected from south end of Buttle Lake, Vancouver Island, in 1981. Estimated from graph. Pooled samples. Canada AAS

BODY; LIVER; MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; CANADA; METAL POISONING; LEAD POISONING; METALS; LEAD; ZINC; CADMIUM, COPPER; BIOACCUMULATION; INDUSTRIES; INDUSTRIAL POLLUTION; MINING; WATER POLLUTION
Roch, M.; Nordin, R.N.; Austin, A.; McKean, C.J.P.; Deniseger, J.; Kathman, R.D.; McCarter, J.A.; Clark, J.R. 1985 Archives of Environmental Contamination and Toxicology 14:347-362

Stilt, black-necked
HIMANTOPUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12311 Liver	a) 5 b) 5 c) 5	a) 21-43 ppm b) 28-126 ppm c) 22-37 ppm Wet wt	a) 29 ppm b) 48 ppm c) 27 ppm Wet wt Geometric means	a) Controls, 6/82 b) Dredge-pits, 11/81 c) Dredge-pits, 5/82 Controls were collected at Port Mansfield or Powderhorn Lake. Others from Neuces Bay, Corpus Christi, at two times while impoundment area with sediment from dredging was covered with water and attractive to birds. Limit of detection 0.2 ppm. Texas AAS

LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; METAL POISONING; LEAD POISONING; LEAD; ZINC; CADMIUM; MERCURY; SELENIUM; ANIMAL POPULATIONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIAL PLANTS
White, D.H.; Cromartie, E. 1985 Bulletin of Environmental Contamination and Toxicology 34:295-300

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Sunfish
LEPOMIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12312 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 31.50 ug/g b) 27.60 ug/g c) 28.10 ug/g d) 27.90 ug/g Wet wt Geometric	a) Composite samples from Lake Verret b) Grand Lake c) Bayou Petite Prairie d) Spring Bayou Collected 6/81. Louisiana, Atchafalaya River Basin ES
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Sunfish, redbreast
LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12313 Muscle	2	0.061-0.114 mg/kg Wet wt	0.088 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362				

Sunfish, spotted
LEPOMIS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12314 Muscle	2	0.047-0.050 mg/kg Wet wt	0.049 mg/kg Wet wt	Collected in 1982 from Savannah River near the Savannah River Nuclear Plant. Calculated mean. South Carolina AAS
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; TRACE ELEMENTS; METALS; BIOACCUMULATION; POWER PLANTS; WATER POLLUTION; HEALTH HAZARDS Koli, A.K.; Whitmore, R. 1983 Environment International 9:361-362				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Swallow, northern rough-winged
STELGIDOPTERYX SERRIPENNIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12315 Body	a) 19 b) 12 c) 9 d) 20 e) 20 f) 7	a) 26.2-42.6 ppm b) 27.2-36.3 ppm c) 27.8-36.5 d) 23.6-45.2 ppm e) 25.0-34.0 ppm f) 20.8-35.0 ppm Wet wt	a) 32.00 ppm b) 30.9 ppm c) 32.1 ppm d) 29.6 ppm e) 30.4 ppm f) 25.8 ppm Wet wt Geometric mean	a) Irondale, Big River b) Deslodge c) Brown's Ford d) Upper River, Black River e) Clearwater Lake f) Lower River Collection sites. Big River polluted by Pb tailings from mining begun in 1700's and continued through 1972. Black River drains currently mined area. Limit of detection 0.1 ppm. Missouri, Big River, Black River ICP-AES
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Tanager, scarlet
PIRANGA OLIVACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12316 Body	2	Not applicable	160 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS				
Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
12317 Liver	a) 4 b) 5	a) 20-54 ppm b) 23-55 ppm Wet wt	a) 31 ppm b) 34 ppm Wet wt Geometric means	a) Controls, 11/81 b) Dredge-pits, 1/82 Controls gathered at Port Mansfield or Powderhorn Lake. Treatment gathered at Neuces Bay, Corpus Christi, at time while impoundment area was covered with water and attractive to birds. Impoundment contained sediment from dredging operations. Limit of detection 0.2 ppm. Texas AAS
LIVER; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; METAL POISONING; LEAD POISONING; LEAD; ZINC; CADMIUM; MERCURY; SELENIUM; ANIMAL POPULATIONS; BIOACCUMULATION; WATER POLLUTION; INDUSTRIAL POLLUTION; INDUSTRIAL PLANTS				
White, D.H.; Cromartie, E. 1985 Bulletin of Environmental Contamination and Toxicology 34:295-300				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Tern, common
STERNA HIRUNDO

Tissue	Cases Exposure Route	Range	Mean	General Information
12318 Liver	a) 14 b) 15 c) 6	a) 29.0-152.8 ug/g b) 56.4-119.3 ug/g c) 19.1-79.4 ug/g Dry wt	a) 77.3 ug/g b) 86.0 ug/g c) 41.1 ug/g Dry wt	a) Providence Barge, Providence River b) Wickford Tower Narragansett Bay c) Price Neck, Rhode Island Sound Nesting sites, a) closest to Providence, major area of electroplating industry. 13-16 day old animals, 1981. Detection limit 0.10 ug/g. Rhode Island AAS
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; FISHES; COPPER; IRON; ZINC; NICKEL; LEAD; CHROMIUM; MAGNESIUM; MANGANESE; BODY; LIVER; WATER POLLUTION; INDUSTRIAL AREAS; INDUSTRIAL POLLUTION; RHODE ISLAND Custer, T.W.; Franson, J.C.; Moore, J.F.; Myers, J.E. 1986 Environmental Pollution (Series A) 41:33-52				

Thousand-legs (millipede)
SPIROBILIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12319 Body		Not given	370 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Thrasher, brown
TOXOSTOMA RUFUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12320 Body	1	Not applicable	130 mg/kg Dry wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Alimentary canal, feet, tail, beak, skin not included. Pennsylvania, eastern, Blue Mountain AAS
BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86				

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Thrush, wood
HYLOCICHLA MUSTELINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12321 Body	a) 5 b) 2	a) 79-140 mg/kg b) 170-190 mg/kg Dry wt	a) Not given b) 180 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Tilefish
LOPHOLATILUS CHAMAELEONTICEPS

Tissue	Cases Exposure Route	Range	Mean	General Information
12322 Liver				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE

Eisler, R. 1984 Biological Trace Element Research 6:165-180

Toad, American
BUFO AMERICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12323 Body, whole	5	56-100 mg/kg Dry wt	74.4 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. None observed at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Toad, Woodhouse's
BUFO WOODHOUSEI

Tissue	Cases Exposure Route	Range	Mean	General Information
12324 Body, whole	3	52-55 mg/kg Dry wt	53.3 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. None observed at Palmerton, 2 km downwind of smelters. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Towhee, rufous-sided
PIPILO ERYTHROPHTHALMUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12325 Body	1	Not applicable	110 mg/kg Dry wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Alimentary canal, feet, tail, beak, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Trout, brown
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12326 Bone	a) 10 b) 8 c) 9 d) 7 e) 6 f) 5 g) 10 h) 6 i) 6	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 2414+/-524 ug/g b) 804+/-275 ug/g c) 348+/-15 ug/g d) 218+/-37 ug/g e) 3347+/-940 ug/g f) 839+/-136 ug/g g) 2584+/-418 ug/g h) 2094+/-1244 ug/g i) 765+/-412 ug/g Dry wt	a) Indigenous to site 1 b) Indigenous to site 2 c) Indigenous to site 3 d) Controls, site 4 e) Transferred from site 2 to site 1, 1974 g) Transferred from site 1 to site 3, 1975 h) Transferred from site 2 to site 1, 1975 i) Transferred from site 4 to site 5, 1975 Sites 1, 2, and 5 on polluted River Twymyn, sites 3 and 4 on unpolluted tributaries. Collection 40-47 d after transfer. Cncentrations not reversible. Tissue samples were pooled opercular bones. Wales AAS
12327 Kidney	a) 11 b) 8 c) 8 d) 7 e) 5 f) 5 g) 10 h) 6 i) 6	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 681+/-166 ug/g b) 410+/-87 ug/g c) 203+/-3 ug/g d) 187+/-60 ug/g e) 479+/-152 ug/g f) 389+/-115 ug/g g) 461+/-98 ug/g h) 968+/-634 ug/g i) 383+/-188 ug/g Dry wt	a) Indigenous to site 1 b) Indigenous to site 2 c) Indigenous to site 3 d) Indigenous to site 4 e) Transferred from site 2 to site 1, 1974 g) Transferred from site 1 to site 3, 1975 h) Transferred from site 2 to site 1, 1975 i) Transferred from site 4 to site 5, 1975 Sites 1, 2, and 5 on polluted River Twymyn, sites 3 and 4 on unpolluted tributaries. Collection 40-47 d after transfer. Reversible concentrations. Wales AAS
12328 Liver	a) 9 b) 8 c) 10 d) 7 e) 6 f) 5 g) 10 h) 6 i) 6	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 747+/-264 ug/g b) 329+/-37 ug/g c) 273+/-97 ug/g d) 182+/-24 ug/g e) 808+/-494 ug/g f) 377+/-212 ug/g g) 329+/-67 ug/g h) 527+/-218 ug/g i) 764+/-570 ug/g Dry wt	a) Indigenous to site 1 b) Indigenous to site 2 c) Indigenous to site 3 d) Controls, site 4 e) Transferred from site 2 to site 1, 1974 g) Transferred from site 1 to site 3, 1975 h) Transferred from site 2 to site 1, 1975 i) Transferred from site 4 to site 5, 1975 Sites 1, 2, and 5 on polluted River Twymyn, sites 3 and 4 on unpolluted tributaries. Collection 40-47 d after transfer. Reversible concentrations. Wales AAS

(next page)

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Trout, brown
SALMO TRUTTA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12329 Muscle	a) 9 b) 8 c) 10 d) 7 e) 5 f) 5 g) 10 h) 6 i) 6	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 151+/-33 ug/g b) 107+/-25 ug/g c) 76+/-8 ug/g d) 69+/-11 ug/g e) 67+/-20 ug/g f) 55+/-10 ug/g g) 77+/-15 ug/g h) 133+/-55 ug/g i) 116+/-60 ug/g Dry wt	a) Indigenous to site 1 b) Indigenous to site 2 c) Indigenous to site 3 d) Controls, site 4 e) Transferred from site 2 to site 1, 1974 g) Transferred from site 1 to site 3, 1975 h) Transferred from site 2 to site 1, 1975 i) Transferred from site 4 to site 5, 1975 Sites 1, 2, and 5 on polluted River Twymyn, sites 3 and 4 on unpolluted tributaries. Collection 40-47 d after transfer. Reversible concentrations. Wales AAS
12330 Scales	a) 10 b) 8 c) 11 d) 7 e) 5 f) 5 g) 9 h) 6 i) 5	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given	a) 2758+/-385 ug/g b) 1079+/-346 ug/g c) 539+/-57 ug/g d) 391+/-87 ug/g e) 2620+/-827 ug/g f) 1054+/-268 ug/g g) 2481+/-711 ug/g h) 2222+/-851 ug/g i) 1814+/-849 ug/g Dry wt	a) Indigenous to site 1 b) Indigenous to site 2 c) Indigenous to site 3 d) Controls, site 4 e) Transferred from site 2 to site 1, 1974 g) Transferred from site 1 to site 3, 1975 h) Transferred from site 2 to site 1, 1975 i) Transferred from site 4 to site 5, 1975 Sites 1, 2, and 5 on polluted River Twymyn, sites 3 and 4 on unpolluted tributaries. Collection 40-47 d after transfer. Soft tissues had reversible concentrations. Wales AAS

MUSCLES; KIDNEYS; LIVER; BONES; SCALES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; METALS; ZINC; BIOACCUMULATION; ANIMAL POPULATIONS; WATER POLLUTION

O'Grady, K.T.; Abdullah, M.I. 1985 Environmental Pollution (Series A) 38:109-127

Trout, cutthroat
SALMO CLARKI

Tissue	Cases Exposure Route	Range	Mean	General Information
12331 Muscle		Not given	25 ug/g Dry wt	Collected from south end of Buttle Lake, Vancouver Island, in 1981. Estimated from graph. Pooled samples. Canada AAS

BODY; LIVER; MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; CANADA; METAL POISONING; LEAD POISONING; METALS; LEAD; ZINC; CADMIUM; COPPER; BIOACCUMULATION; INDUSTRIES; INDUSTRIAL POLLUTION; MINING; WATER POLLUTION

Roch, M.; Nordin, R.N.; Austin, A.; McKean, C.J.P.; Deniseger, J.; Kathman, R.D.; McCarter, J.A.; Clark, J.R. 1985 Archives of Environmental Contamination and Toxicology 14:347-362

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12332 *Gills*	a) 14 b) 15 c) 15 d) 15 e) 15 f) 15	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 444+/-43 ug/g b) 382+/-73 ug/g c) 373+/-42 ug/g d) 367+/-46 ug/g e) 386+/-53 ug/g f) 491+/-45 ug/g Dry wt	a) Neutral (pH 7.0) and hard (390 mg CaCO3/L) water, Zn 19 mg/L b) Neutral and soft (30 mg CaCO3/L) water, Zn 6 mg/L c) Acid (pH 5.5) and hard water, Zn 19 mg/L d) Acid and soft water, Zn 6 mg/L e) Neutral and hard water, Zn 13.8 mg/L f) Neutral and hard water, Zn 26.9 mg/L Accumulation at death after exposure to lethal levels. Fish size 2.7+/-0.5-3.3+/-0.7 g wet wt. Larger fish had reduced tolerance and resistance. AAS

AQUATIC; FISHES; DELIBERATE EXPOSURE; ZINC; GILLS; COMPARATIVE EVALUATIONS; WATER POLLUTION
Bradley, R.W.; Sprague, J.B. 1985 Environmental Toxicology and Chemistry 4:685-694

Tissue	Cases Exposure Route	Range	Mean	General Information
12333 Liver		Not given	175 ug/g Dry wt	Collected from south end of Buttle Lake, Vancouver Island, in 1981. Estimated from graph. Pooled samples. Canada AAS
12334 Muscle		Not given	50 ug/g Dry wt	Collected from south end of Buttle Lake, Vancouver Island, in 1981. Estimated from graph. Pooled samples. Canada AAS

BODY; LIVER; MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; CANADA; METAL POISONING; LEAD POISONING; METALS; LEAD; ZINC; CADMIUM; COPPER; BIOACCUMULATION; INDUSTRIES; INDUSTRIAL POLLUTION; MINING; WATER POLLUTION
Roch, M.; Nordin, R.N.; Austin, A.; McKean, C.J.P.; Deniseger, J.; Kathman, R.D.; McCarter, J.A.; Clark, J.R. 1985 Archives of Environmental Contamination and Toxicology 14:347-362

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12335 Kidney	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 8.80+/-0.99 ppm b) 9.60+/-0.88 ppm c) 9.93+/-1.18 ppm d) 9.79+/-0.69 ppm e) 10.51+/-0.41 ppm Wet wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 100%. Detection limit 0.1 ppm. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ AAS
12336 Liver	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 27.72+/-3.25 ppm b) 29.29+/-3.60 ppm c) 50.38+/-23.74 ppm d) 38.95+/-10.67 ppm e) 30.68+/-4.44 ppm Wet wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 100%. Detection limit 0.1 ppm. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ AAS

ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION

Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49

Underwing (moth)
CATOCALA PALAEOGAMA

Tissue	Cases Exposure Route	Range	Mean	General Information
12337 Body		a) Not given b) Not given	a) 160 mg/kg b) 250 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Underwing, copper
AMPHIPYRA PYRAMIDOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
12338 Body		a) Not given b) Not given	a) 140 mg/kg b) 540 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Warbler

Tissue	Cases Exposure Route	Range	Mean	General Information
12339 Body	1	Not applicable	140 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Alimentary canal, feet, tail, beak, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Warbler, black-and-white
MNIOTILTA VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
12340 Body	a) 1 b) 1	a) Not applicable b) Not applicable	a) 78 mg/kg b) 96 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Alimentary canals, feet, tails, beaks, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc

7440-66-6

Zn

AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Warbler, yellow-throated
DENDROICA DOMINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12341 Body	1	Not applicable	210 mg/kg Dry wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Alimentary canal, feet, tail, beak, skin not included. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Whiting
MERLANGIUS MERLANGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12342 Body, whole				Review. Cd, Pb, Hg and Se levels increased as organism aged. Cr, Cu, Fe, Ni and Zn decreased. Mn increased with age in mammals but decreased in birds and fish. Associated factors (diet, differential uptake, rates, biomagnification) discussed.

REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE

Eisler, R. 1984 Biological Trace Element Research 6:165-180

Worm, annelid
EISENOIDES CAROLINENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12343 Body, whole		Not given	280 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Earthworms not observed at Palmerton, 2 km downwind. Pennsylvania, eastern, Blue Mountain AAS

BODY; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; MAMMALS; BIRDS; INSECTS; SLUGS; MILLIPEDES; EARTHWORMS; AMPHIBIANS; PENNSYLVANIA; LEAD; ZINC; CADMIUM; COPPER; METALS; AIR POLLUTION; SOILS; ANIMAL POPULATIONS; BIOACCUMULATION; INDUSTRIAL EMISSIONS; POPULATION EXPOSURE; SMELTERS

Beyer, W.N.; Pattee, O.H.; Sileo, L.; Hoffman, D.J.; Mulhern, B.M. 1985 Environmental Pollution (Series A) 38:63-86

Zinc
7440-66-6
Zn
AtW 65.38, MP 419.5 C, BP 908 C, VP 1 mm Hg at 487 C, 10 mm Hg at 590 C

Zooplankton

Tissue	Cases Exposure Route	Range	Mean	General Information
12344 Body		Not given	1300 ug/g Dry wt	Collected from south end of Buttle Lake, Vancouver Island, in 1981. Estimated from graph. Pooled samples. Canada AAS

BODY; LIVER; MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; CANADA; METAL POISONING; LEAD POISONING; METALS; LEAD; ZINC; CADMIUM; COPPER; BIOACCUMULATION; INDUSTRIES; INDUSTRIAL POLLUTION; MINING; WATER POLLUTION
Roch, M.; Nordin, R.N.; Austin, A.; McKean, C.J.P.; Deniseger, J.; Kathman, R.D.; McCarter, J.A.; Clark, J.R. 1985 Archives of Environmental Contamination and Toxicology 14:347-362

Zinc, isotope of mass 65
13982-39-3
Zn
MP 419.5 C, BP 908 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12345 Gills	a) 17 b) 17 c) 17 d) 14	a) Not given b) Not given c) Not given d) Not given	a) 12,080+/-1101 cpm/g b) 8,778+/-535 cpm/g c) 10,042+/-1283 cpm/g d) 8,722+/-856 cpm/g Dry wt	a) Neutral (pH 7.0) and hard (390 mg CaCO3/L) water, Zn 19 mg/L b) Neutral and soft (30 mg CaCO3/L) water, Zn 6 mg/L c) Acid (pH 5.5) and hard water, Zn 19 mg/L d) Acid and soft water, Zn 6 mg/L Accumulation at death after exposure to lethal levels. Replicate tests. Fish size 15.2+/-2.4-19.0+/-3.6 g wet wt. AAS

AQUATIC; FISHES; DELIBERATE EXPOSURE; ZINC; GILLS; COMPARATIVE EVALUATIONS; WATER POLLUTION
Bradley, R.W.; Sprague, J.B. 1985 Environmental Toxicology and Chemistry 4:685-694

1,1'-Biphenyl, dichloro-ar,ar'-bis(trifluoromethyl)-
95998-65-5
C14-H6-Cl2-F6

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12346 Body		1-540 ng/g Fat basis	Not given	Sites: Lake Ontario at Salmon River, Niagara River at Fort Niagara, Niagara River at Lewiston, Little Niagara River. Collected in Fall of 1979, those from Little Niagara River in June, 1983. Sedentary species (such as carp, bass) and a few salmon. New York GC/MS

AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; BODY; WATER POLLUTION; BIPHENYL COMPOUNDS
Jaffe, R.; Hites, R.A. 1985 Environmental Science and Technology 19(8):736-740

1,1'-Biphenyl, trichloro-ar,ar'-bis(trifluoromethyl)-
95998-66-6
C14-H5-Cl3-F6
Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12347 Body		0.3-73 ng/g Fat basis	Not given	Sites: Lake Ontario at Salmon River, Niagara River at Fort Niagara, Niagara River at Lewiston, Little Niagara River. Collected in Fall of 1979, those from Little Niagara River in June, 1983. Sedentary species (such as carp, bass) and a few salmon. New York GC/MS
AQUATIC; FISHES; ENVIRONMENTAL EXPOSURE; BODY; WATER POLLUTION; BIPHENYL COMPOUNDS Jaffe, R.; Hites, R.A. 1985 Environmental Science and Technology 19(8):736-740				

1,1'-Biphenyl, 2,2',3,3',4,4'-hexachloro-
38380-07-3
C12-H4-Cl6
MW 360.86
Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12348 Body		a) Not given b) Not given	a) 0.02+/-0.003 ug/g b) 0.3+/-0.04 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12349 Body		a) Not given b) Not given	a) 0.03+/-0.02 ug/g b) 0.2+/-0.01 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3,3',4,4'-hexachloro-
38380-07-3
C12-H4-Cl6
MW 360.86

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12350 Body		a) Not given b) Not given	a) 0.04+/-0.005 ug/g b) 0.03+/-0.008 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION				
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3,3',4,5,5',6'-octachloro-
52663-75-9
C12-H2-Cl8
MW 429.74

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12351 Body		a) Not given b) Not given	a) 0.02+/-0.002 ug/g b) 0.1+/-0.1 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION				
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12352 Body		a) Not given b) Not given	a) 0.02+/-0.007 ug/g b) 0.09+/-0.006 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION				
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3,3',4,5,5',6'-o ctachloro-

52663-75-9
C12-H2-Cl8
MW 429.74
Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12353 Body		a) Not given b) Not given	a) 0.01+/-0.006 ug/g b) 0.008+/-0.00002 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3,3',5,6,6'-heptachloro-

52663-64-6
C12-H3-Cl7
Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
12354 Fillets	3	0.033-0.036 ppm	0.035+/-0.0018 ppm	Included skin. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9				

1,1'-Biphenyl, 2,2',3,3',6,6'-hexachloro-

38411-22-2
C12-H4-Cl6
Reindeer
RANGIFER sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12355 Body	2 Ingestion	10.7-22.33 ug	16.51 ug	Total burden in 3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 1250. Means calculated by extractor. Sweden, Lake Rogen district

(next page)

1,1'-Biphenyl, 2,2',3,3',6,6'-hexachloro-
38411-22-2
C12-H4-Cl6
Reindeer
RANGIFER sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12356 Liver	2 Ingestion	0.343-0.36 ng/g	0.35 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 1250. Means calculated by extractor. Value lower in 4-yr old. Sweden, Lake Rogen district
12357 Muscle	2 Ingestion	0.425-0.91 ng/g	0.67 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 1250. Means calculated by extractor. Sweden, Lake Rogen district
ENVIRONMENTAL EXPOSURE; DEER; BODY; MUSCLES; LIVER; SWEDEN; TERRESTRIAL; FOOD CONTAMINATION; ANIMAL FEEDS; POLYCHLORINATED BIPHENYLS; DDD; DDE; LINDANE; HEXACHLOROBENZENE; PESTICIDES Villeneuve, J.P.; Holm, E.; Cattini, C. 1985 Chemosphere 14(11/12):1651-1658				

1,1'-Biphenyl, 2,2',3,4,5'-pentachloro-
38380-02-8
C12-H5-Cl5
MW 326.42
Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12358 Body		a) Not given b) Not given	a) 0.6+/-0.1 ug/g b) 0.5+/-0.1 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3,4,5'-pentachloro-
38380-02-8
C12-H5-Cl5
MW 326.42

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12359 Body		a) Not given b) Not given	a) 0.3+/-0.1 ug/g b) 1.3+/-0.3 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12360 Body		a) Not given b) Not given	a) 0.1+/-0.02 ug/g b) 0.08+/-0.02 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3,5'-tetrachloro-
41464-39-5
C12-H6-Cl4
MW 291.98

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12361 Body		a) Not given b) Not given	a) 2.3+/-0.5 ug/g b) 3.5+/-0.1 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3,5'-tetrachloro-

41464-39-5
C12-H6-Cl4
MW 291.98

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12362 Body		a) Not given b) Not given	a) 1.1+/-0.5 ug/g b) 12.0+/-1.6 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12363 Body		a) Not given b) Not given	a) 1.7+/-0.07 ug/g b) 1.2+/-0.2 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',3',4,5-pentachloro- (No postings in CHEMLINE).

Reindeer
RANGIFER sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12364 Body	2 Ingestion	1.77-5.74 ug	3.76 ug	Total burden in 3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 220. Means calculated by extractor. Sweden, Lake Rogen district
12365 Liver	2 Ingestion	0.134-0.043 ng/g	0.089 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 220. Means calculated by extractor. Value lower in 4-yr old. Sweden, Lake Rogen district

(next page)

1,1'-Biphenyl, 2,2',3',4,5-pentachloro- (No postings in CHEMLINE).

Reindeer
RANGIFER sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12366 Muscle	2 Ingestion	0.066-0.237 ng/g	0.15 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 220. Means calculated by extractor. Sweden, Lake Rogen district
ENVIRONMENTAL EXPOSURE; DEER; BODY; MUSCLES; LIVER; SWEDEN; TERRESTRIAL; FOOD CONTAMINATION; ANIMAL FEEDS; POLYCHLORINATED BIPHENYLS; DDD; DDE; LINDANE; HEXACHLOROBENZENE; PESTICIDES Villeneuve, J.P.; Holm, E.; Cattini, C. 1985 Chemosphere 14(11/12):1651-1658				

1,1'-Biphenyl, 2,2',4,4',5-pentachloro-

38380-01-7
C12-H5-Cl5
MW 326.42

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12367 Body		a) Not given b) Not given	a) 0.3+/-0.06 ug/g b) 0.5+/-0.006 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12368 Body		a) Not given b) Not given	a) 0.2+/-0.06 ug/g b) 0.5+/-0.2 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',4,4',5-pentachloro-
38380-01-7
C12-H5-Cl5
MW 326.42

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12369 Body		a) Not given b) Not given	a) 0.2+/-0.02 ug/g b) 0.08+/-0.04 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC

BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105

1,1'-Biphenyl, 2,2',4,4',5,5'-hexabromo-
59080-40-9
C12-H4-Br6
MW 627.40, MP 72 C, VP 0.000076 mm Hg at 90 C

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12370 Body	a) 9 b) 9 c) 9 d) 18 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 340+/-40 ug b) 2850+/-90 ug c) 9300+/-1430 ug d) Not detectable	a) Egg-type chickens fed 14 d on 1 ppm fire Master (FF1) b) 10 ppm of FF1 c) Meat-type chickens, 10 ppm of FF1 d) Controls, no FF1, detection limits 0.01 ug/g for egg-type, 0.02 ug/g for meat-type Body burdens. Congener approximately 65% of total mix in FF1. Data on body burdens during withdrawal periods up to 42 d also given. Michigan

DELIBERATE EXPOSURE; CHICKENS; TERRESTRIAL; BODY; FOOD CONTAMINATION; MICHIGAN; POLYBROMINATED BIPHENYLS
Polin, D.; Lehning, E.; Pullen, D.; Bursian, S.; Leavitt, R. 1985 Journal of Toxicology and Environmental Health 16:243-254

1,1'-Biphenyl, 2,2',4,4',5,5'-hexachloro-
35065-27-1
C12-H4-Cl6
MW 361

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12371 Body		a) Not given b) Not given	a) 0.0+/-0.0 ug/g b) 0.0+/-0.0 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12372 Body		a) Not given b) Not given	a) 0+/-0 ug/g b) 0.3+/-0.3 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12373 Body		a) Not given b) Not given	a) 0+/-0 ug/g b) 0.3+/-0.3 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',4,4',5,5'-hexachloro-
35065-27-1
C12-H4-Cl6
MW 361
Reindeer
RANGIFER sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12374 Body	2 Ingestion	20.22-21.34 ug	20.78 ug	Total burden in 3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 580. Means calculated by extractor. Value lower in 4-yr old. Sweden, Lake Rogen district
12375 Liver	2 Ingestion	0.552-0.775 ng/g	0.663 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 580. Means calculated by extractor. Value lower in 4-yr old. Sweden, Lake Rogen district
12376 Muscle	2 Ingestion	0.81-0.844 ng/g	0.83 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 580. Means calculated by extractor. Value lower in 4-yr old. Sweden, Lake Rogen district
ENVIRONMENTAL EXPOSURE; DEER; BODY; MUSCLES; LIVER; SWEDEN; TERRESTRIAL; FOOD CONTAMINATION; ANIMAL FEEDS; POLYCHLORINATED BIPHENYLS; DDD; DDE; LINDANE; HEXACHLOROBENZENE; PESTICIDES Villeneuve, J.P.; Holm, E.; Cattini, C. 1985 Chemosphere 14(11/12):1651-1658				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12377 Body	10	Not given	250+/-130 ng/g	Comparison of laboratory- and field-derived bioconcentration factors (BCFs) for 34 chemicals showed predictions based on lab BCFs useful for chemicals with short half-lives but too low for long half-life chemicals where contaminated food is major source. Lake Ontario, Ganaraska River CC; EC
FISHES; ENVIRONMENTAL EXPOSURE; BIOCONCENTRATION; CHLORINE ORGANIC COMPOUNDS; PESTICIDE RESIDUES; WATER POLLUTION; POLYCHLORINATED BIPHENYLS Oliver, B.G.; Niimi, A.J. 1985 Environmental Science and Technology 19:842-849				

1,1'-Biphenyl, 2,2',4,5,5'-pentachloro-

37680-73-2
C12-H5-Cl5
MW 326.42
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12378 Body	10	Not given	160+/-87 ng/g	Comparison of laboratory- and field-derived bioconcentration factors (BCFs) for 34 chemicals showed predictions based on lab BCFs useful for chemicals with short half-lives but too low for long half-life chemicals where contaminated food is major source. Lake Ontario, Ganaraska River CC; EC
FISHES; ENVIRONMENTAL EXPOSURE; BIOCONCENTRATION; CHLORINE ORGANIC COMPOUNDS; PESTICIDE RESIDUES; WATER POLLUTION; POLYCHLORINATED BIPHENYLS Oliver, B.G.; Niimi, A.J. 1985 Environmental Science and Technology 19:842-849				

1,1'-Biphenyl, 2,2',4,5'-tetrachloro-

41464-40-8
C12-H6-Cl4
MW 291.98
Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12379 Body		a) Not given b) Not given	a) 1.0+/-0.2 ug/g b) 0.8+/-0.06 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12380 Body		a) Not given b) Not given	a) 0.5+/-0.2 ug/g b) 1.8+/-0.2 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',4,5'-tetrachloro-
41464-40-8
C12-H6-Cl4
MW 291.98

Caddisfly (*P. guttifer*)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12381 Body		a) Not given b) Not given	a) 0.2+/-0.04 ug/g b) 0.1+/-0.01 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Reindeer
RANGIFER sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12382 Body	2 Ingestion	0.107-0.14 ng/g	0.12 ng/g	Total burden in 3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 4030. Means calculated by extractor. Sweden, Lake Rogen district
12383 Liver	2 Ingestion	0.008-0.016 ng/g	0.012 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 4030. Means calculated by extractor. Sweden, Lake Rogen district
12384 Muscle	2 Ingestion	0.004-0.005 ng/g	0.0045 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 4030. Means calculated by extractor. Sweden, Lake Rogen district
ENVIRONMENTAL EXPOSURE; DEER; BODY; MUSCLES; LIVER; SWEDEN; TERRESTRIAL; FOOD CONTAMINATION; ANIMAL FEEDS; POLYCHLORINATED BIPHENYLS; DDD; DDE; LINDANE; HEXACHLOROBENZENE; PESTICIDES Villeneuve, J.P.; Holm, E.; Cattini, C. 1985 Chemosphere 14(11/12):1651-1658				

1,1'-Biphenyl, 2,2',5,5'-tetrachloro-
35693-99-3
C12-H6-Cl4
MW 291.98

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12385 Body		a) Not given b) Not given	a) 2.3+/-0.5 ug/g b) 3.1+/-0.1 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12386 Body		a) Not given b) Not given	a) 1.2+/-0.5 ug/g b) 7.4+/-0.9 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12387 Body		a) Not given b) Not given	a) 0.7+/-0.1 ug/g b) 0.5+/-0.04 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphenyl, 2,2',5,5'-tetrachloro-
35693-99-3
C12-H6-Cl4
MW 291.98
Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
12388 Carcass	65	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 20.4+/-2.1 ppb b) 17.3+/-1.2 ppb c) 6.0+/-2.1 ppb d) 5.2+/-1.6 ppb e) 2.6+/-0.4 ppb f) 1.6+/-0.1 ppb g) 1.6+/-0.2 ppb	a) 2 wk b) 4 wk c) 8 wk d) 14 wk e) 18 wk f) 20 wk g) 24 wk Times after transfer to residue water. All fish exposed to 250 uC (C-14 label) in 250 liters water for 24 hr prior to transfer. Spawning occurred between wk 18 and 20. Redistribution of chemical to eggs from all other tissues occurred until spawning. 3-5 cases per time point. Carcasses included the skeleton, head, and any other tissue that remained after viscera, eggs, and fillet were removed. Minnesota, Peterson, Peterson Trout Farm Scintillation counting
12389 Eggs	65	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 30.6+/-7.4 ppb b) 28.9+/-2.1 ppb c) 41.8+/-4.2 ppb d) 30.1+/-4.4 ppb e) 23.5+/-3.5 ppb f) 2.7+/-0.3 ppb g) 2.0+/-0.3 ppb	a) 2 wk b) 4 wk c) 8 wk d) 14 wk e) 18 wk f) 20 wk g) 24 wk Times after transfer to residue water. All fish exposed to 250 uC (C-14 label) in 250 liters water for 24 hr prior to transfer. Spawning occurred between wk 18 and 20. Redistribution of chemical to eggs from all other tissues occurred until spawning. 3-5 cases per time point. Samples included eggs, ovary, and intraovarian connective tissue. Minnesota, Peterson, Peterson Trout Farm Scintillation counting

(next page)

1,1'-Biphenyl, 2,2',5,5'-tetrachloro-
35693-99-3
C12-H6-Cl4
MW 291.98

Perch, yellow
PERCA FLAVESCENS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12390 Muscle	65	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 2.6+/-2.1 ppb b) 2.7+/-1.2 ppb c) 3.7+/-0.4 ppb d) 3.6+/-0.5 ppb e) 2.2+/-0.3 ppb f) 1.5+/-0.2 ppb g) 0.8+/-0.2 ppb	a) 2 wk b) 4 wk c) 8 wk d) 14 wk e) 18 wk f) 20 wk g) 24 wk Times after transfer to residue water. All fish exposed to 250 uC (C-14 label) in 250 liters water for 24 hr prior to transfer. Spawning occurred between wk 18 and 20. Redistribution of chemical to eggs from all other tissues occurred until spawning. 3-5 cases per time point. Samples were fillets including skeletal muscle, skin, and scales. Minnesota, Peterson, Peterson Trout Farm Scintillation counting
12391 Viscera	65	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 35.0+/-9.8 ppb b) 22.8+/-5.5 ppb c) 10.3+/-2.2 ppb d) 9.5+/-1.9 ppb e) 6.7+/-1.1 ppb f) 6.3+/-1.6 ppb g) 5.4+/-0.9 ppb	a) 2 wk b) 4 wk c) 8 wk d) 14 wk e) 18 wk f) 20 wk g) 24 wk Times after transfer to residue water. All fish exposed to 250 uC (C-14 label) in 250 liters water for 24 hr prior to transfer. Spawning occurred between wk 18 and 20. Redistribution of chemical to eggs from all other tissues occurred until spawning. 3-5 cases per time point. Minnesota, Peterson, Peterson Trout Farm Scintillation counting

VISCERA; CARCASS; MUSCLES; EGGS; FISHES; AQUATIC; DELIBERATE EXPOSURE; MINNESOTA; ADULTS; BIPHENYL COMPOUNDS; POLYCHLORINATED BIPHENYLS; BIOCONCENTRATION

Vodicnik, M.J.; Peterson, R.E. 1985 Fundamental and Applied Toxicology 5:770-776

1,1'-Biphenyl, 2,2',5,5'-tetrachloro-
35693-99-3
C12-H6-Cl4
MW 291.98

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12392 Body	10	Not given	60+/-28 ng/g	Comparison of laboratory- and field-derived bioconcentration factors (BCFs) for 34 chemicals showed predictions based on lab BCFs useful for chemicals with short half-lives but too low for long half-life chemicals where contaminated food is major source. Lake Ontario, Ganaraska River CC; EC

FISHES; ENVIRONMENTAL EXPOSURE; BIOCONCENTRATION; CHLORINE ORGANIC COMPOUNDS; PESTICIDE RESIDUES; WATER POLLUTION; POLYCHLORINATED BIPHENYLS
Oliver, B.G.; Niimi, A.J. 1985 Environmental Science and Technology 19:842-849

1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-
38380-08-4
C12-H4-Cl6
MW 361

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12393 Body		a) Not given b) Not given	a) 0.05+/-0.007 ug/g b) 0.1+/-0.001 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC

BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12394 Body		a) Not given b) Not given	a) 0.02+/-0.01 ug/g b) 0.1+/-0.03 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC

BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105

1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-
38380-08-4
C12-H4-Cl6
MW 361
Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12395 Body		a) Not given b) Not given	a) 0.004+/-0.002 ug/g b) 0.002+/-0.002 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphhenyl, 2,2',3,4,4',5'-hexachloro-
35065-28-2
C12-H4-Cl6
MW 361
Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12396 Body		a) Not given b) Not given	a) 0.3+/-0.06 ug/g b) 0.5+/-0.05 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12397 Body		a) Not given b) Not given	a) 0.2+/-0.05 ug/g b) 0.6+/-0.2 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,1'-Biphhenyl, 2,2',3,4,4',5'-hexachloro-
35065-28-2
C12-H4-Cl6
MW 361

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12398 Body		a) Not given b) Not given	a) 0.1+/-0.02 ug/g b) 0.1+/-0.006 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b-undecachlorooctahydro-
39801-14-4
C10-H-Cl11
MW 511.06

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12399 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.02 ppm b) 0.09 ppm c) 0.09 ppm d) 0.96 ppm e) 0.03 ppm f) 0.08 ppm Wet wt	a) Kent Island, Bay of Fundy b) Agawa Rock, Lake Superior c) Chantry Island, Lake Huron d) Presqu'ile, Lake Ontario e) Channel-Shelter Island, Saginaw Bay f) Fighting Island, Detroit River Pooled homogenates from 15-25 eggs. Collected 1981. Great Lakes, Atlantic Ocean GC
ENVIRONMENTAL EXPOSURE; AQUATIC; EGGS; GREAT LAKES; WATER POLLUTION; PESTICIDES; BIRDS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; DIELDRIN; OXYCHLORDANE Ellenton, J.A.; Brownlee, L.J.; Hollebone, B.R. 1985 Environmental Toxicology and Chemistry 4:615-622				

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
12400 Body, whole				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico

ENVIRONMENTAL EXPOSURE; REVIEW; DELIBERATE EXPOSURE; TERRESTRIAL; BATS; CARCASS; BODY; LIVER; ADIPOSE TISSUE; BRAIN; GASTROINTESTINAL SYSTEM; MAMMARY GLANDS; MILK; HEART; LUNGS; KIDNEYS; SKIN; MUSCLES; HAIR; PESTICIDES; PESTICIDE RESIDUES; INSECTICIDES; DDT; DDD; DDE; DIELDRIN; LINDANE; POLYCHLORINATED BIPHENYLS; MIREX; HEPTACHLOR EPOXIDE; OXYCHLORDANE; SELENIUM; MERCURY; LEAD; METALS

Clark, D.R. 1981 U.S. Department of the Interior, Special Scientific Report - Wildlife No. 235, 27 pp.

Bobcat
LYNX RUFUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12401 Liver	a) 2 b) 4 c) 2 d) 1 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.04 ppm b) 0.39 ppm c) 0.08 ppm d) 0.08 ppm e) 0.11 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC
12402 Muscle	a) 3 b) 4 c) 2 d) 2 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.01 ppm b) 0.60 ppm c) 0.04 ppm d) 0.03 ppm e) 0.02 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC

MUSCLES; LIVER; BODY; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; OTTERS; MINKS; FOXES; SKUNKS; RACOONS; BOBCATS; OPOSSUMS; ALABAMA; GEORGIA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES; BIOLOGICAL MONITORING; BIOCONCENTRATION; PESTICIDE RESIDUES

Hill, E.P.; Dent, D.M. 1985 Archives of Environmental Contamination and Toxicology 14:7-12

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Canvasback
AYTHYA VALISINERIA

Tissue	Cases Exposure Route	Range	Mean	General Information
12403 Adipose	5	a) 0.23-0.39 ug/g b) Not detected Wet wt	a) 0.31 ug/g b) Not detected Wet wt	a) 3 cases b) 2 cases Collected 12/6/81. 4 adults and 1 juvenile, 1.15-1.58 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
12404 Muscle	4	Not detected	Not detected	Breast. Collected 12/6/81. 3 adults and 1 juvenile, 1.40-1.58 kg, shot by hunters. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18				

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12405 Liver	1	Not applicable	<0.1 m,g/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
12406 Adipose	17	a) 0 05-0.86 ug/g b) Not detected Wet wt	a) 0.29 ug/g b) Not detected Wet wt	a) 9 cases b) 8 cases Collected 10/14-12/12/81. 15 adults, 2 juveniles, 1.05-1.48 kg, shot by hunters. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC

(next page)

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Duck, black
ANAS RUBRIPES

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12407 Liver	2	a) Not applicable b) Not detected Wet wt	a) <0.004 ug/g b) Not detected Wet wt	a) 1 case b) 1 case Collected 12/12/81. Adult and juvenile, 1.05-1.40 kg, shot by hunters. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
12408 Muscle	17	a) 0.01-0.03 ug/g b) Not applicable c) Not detected Wet wt	a) 0.02 ug/g b) <0.004 ug/g c) Not detected Wet wt	a) 2 cases b) 1 case c) 14 cases Breast. Collected 10/14-12/12/81. 15 adults, 2 juveniles, 1.05-1.48 kg, shot by hunters. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18				

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12409 Adipose	10	a) 0.08-1.3 ug/g b) Not detected Wet wt	a) 0.51 ug/g b) Not detected Wet wt	a) 4 cases b) 6 cases Collected 10/14/81. Adults, 1.13-1.35 kg, shot by hunters. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
12410 Liver	1	Not detected	Not detected	Collected 10/14/81. Adult, 1.13 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC

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1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Duck, mallard
ANAS PLATYRHYNCHOS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12411 Muscle	12	a) 0.01-0.02 ug/g b) Not detected Wet wt	a) 0.015 ug/g b) Not detected Wet wt	a) 2 cases b) 10 cases Breast. Collected 6/7 and 10/14/81. Adults, 1.13-1.35 kg, 11 cases shot by hunters, 1 case died of parathion poisoning. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River and Great South Bay GC-EC
ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18				

Duck, wood
AIX SPONSA

Tissue	Cases Exposure Route	Range	Mean	General Information
12412 Adipose	4	Not detected	Not detected	Collected 10/14/81. Adults, 0.66-0.74 kg, shot by hunters. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
12413 Muscle	4	Not detected	Not detected	Breast. Collected 10/14/81. Adults, 0.66-0.74 kg, shot by hunters. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18				

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Eagle, bald
HALIAEETUS LEUCOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12414 Body				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; *MIREX; KEPONE; POLYCHLORINATED* BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf				

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12415 Brain	a) 2 b) 1 c) 3	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 5/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12416 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected-0.18 ppm b) Not detected c) Not detected d) Not detected Wet wt	a) Not applicable b) Not detected c) Not detected d) Not detected	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12417 Brain	a) 4 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12418 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Egret, snowy
EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
12419 Brain	1	Not detected	Not detected	Dead chick, 6/77. Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
12420 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12421 Body		0.00-0.21 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, *1980-81. Range from total of 62 species.* Maximum value in lipid wt=5.2 ug/g. Part of National Pesticides Monitoring Program. United States GLC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260				

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
12422 Liver	1	Not applicable	32 mg/kg *Lipid basis*	Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12423 Liver	1	Not applicable	2 mg/kg Lipid basis	*Collected off* Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Fox
VULPES sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12424 Liver	a) 4 b) 3 c) 2 d) 3 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.06 ppm b) 3.06 ppm c) 0.58 ppm d) 0.73 ppm e) 0.23 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC
12425 Muscle	a) 4 b) 3 c) 2 d) 4 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.04 ppm b) 0.95 ppm c) 0.72 ppm d) 0.32 ppm e) 0.04 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC

MUSCLES; LIVER; BODY; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; OTTERS; MINKS; FOXES; SKUNKS; RACOONS; BOBCATS; OPOSSUMS; ALABAMA; GEORGIA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES; BIOLOGICAL MONITORING; BIOCONCENTRATION; PESTICIDE RESIDUES
Hill, E.P.; Dent, D.M. 1985 Archives of Environmental Contamination and Toxicology 14:7-12

Goose, Canada
BRANTA CANADENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12426 Adipose	9	Not detected	Not detected	Collected 6/2 and 6/7/82. Adults, 4.43-6.14 kg, died of parathion poisoning. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Great South Bay GC-EC
12427 Liver	1	Not detected	Not detected	Collected 6/2/82. Adult, 5.68 kg, died of parathion poisoning. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Great South Bay GC-EC
12428 Muscle	11	Not detected	Not detected	Breast. Collected 6/2 and 6/7/82. Adults, 4.43-6.14 kg, died of parathion poisoning. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Great South Bay GC-EC

ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL
Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12429 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.02 ppm b) 0.22 ppm c) 0.20 ppm d) 2.23 ppm e) 0.08 ppm f) 0.21 ppm Wet wt	a) Kent Island, Bay of Fundy b) Agawa Rock, Lake Superior c) Chantry Island, Lake Huron d) Presqu'ile, Lake Ontario e) Channel-Shelter Island, Saginaw Bay f) Fighting Island, Detroit River Pooled homogenates from 15-25 eggs. Collected 1981. Great Lakes, Atlantic Ocean GC
ENVIRONMENTAL EXPOSURE; AQUATIC; EGGS; GREAT LAKES; WATER POLLUTION; PESTICIDES; BIRDS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; DIELDRIN; OXYCHLORDANE Ellenton, J.A.; Brownlee, L.J.; Hollebone, B.R. 1985 Environmental Toxicology and Chemistry 4:615-622				

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
12430 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Wisconsin, adult, 8/78 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12431 Carcass	a) 1 b) 3 c) 5 d) 1 e) 3 f) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Massachusetts, adult, possible paralyutic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Wisconsin, adult, 8/78 e) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) f) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
12432 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-0.26 ppm b) Not detected-0.20 ppm c) Not detected-0.17 ppm d) Not detected e) Not detected f) Not detected g) Not detected-2.9 ppm h) Not detected-0.94 ppm Wet wt	a) Not applicable b) Not applicable c) Not applicable d) Not detected e) Not detected f) Not detected g) Not applicable h) Not applicable Wet wt	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-65/79 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12433 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected c) Not detected-0.19 ppm d) Not detected e) Not detected f) Not detected-4.5 ppm g) Not detected-4.0 ppm h) Not applicable Wet wt	a) Not detected b) Not detected c) Not applicable d) Not detected e) Not detected f) Not applicable g) Not applicable h) 0.95 ppm Wet wt	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12434 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES				
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12435 Carcass	a) 6 b) 1	a) Not detected-0.11 ppm b) Not detected Wet wt	a) Not applicable b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES				
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12436 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES				
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, *VP* 6X10(E-6) mm Hg at 25 C

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12437 Carcass	3	Not detected	Not detected	Alablama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12438 Carcass	a) 19 b) 66	a) 0.06-0.64 ppm b) Not detected-0.12 ppm Wet wt	a) 0.04+/-0.03 ppm b) 0.02+/-0.02 ppm S.E. Wet wt Arithmetic	a) Detected in 3/19 individuals b) Detected in 1/7 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah; Oregon; Montana; Colorado GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Merganser, American
MERGUS MERGANSER

Tissue	Cases Exposure Route	Range	Mean	General Information
12439 Adipose	1	Not detected	Not detected	Collected 12/5/81. Juvenile, 1.23 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC

(next page)

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Merganser, American
MERGUS MERGANSER

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12440 Muscle	1	Not detected	Not detected	Breast Collected 12/5/81. Juvenile, 1.23 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18				

Merganser, hooded
LOPHODYTES CACULLATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12441 Adipose	1	Not applicable	7.8 ug/g Wet wt	Collected 10/14/81. Juvenile, 0.58 kg, shot by hunter. New York, Hudson River GC-EC
12442 Muscle	1	Not applicable	0.05 ug/g Wet wt	Breast. Collected 10/14/81. Juvenile, 0.58 kg, shot by hunter. New York, Hudson River GC-EC
ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18				

Mink
MUSTELA VISON

Tissue	Cases Exposure Route	Range	Mean	General Information
12443 Liver	a) 2 b) 2 c) 2 d) 2	a) Not given b) Not given c) Not given d) Not given	a) Not detected b) 0.10 ppm c) 0.41 ppm d) 0.05 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 24 mo After mirex application between 1974 and 1977 to control fire ants. Detection limits not given. Alabama; Georgia GC-EC

(next page)

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) *mm Hg* at 25 C

Mink
MUSTELA VISON

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12444 Muscle	a) 2 b) 2 c) 2 d) 2	a) Not given b) Not given c) Not given d) Not given	a) Not detected b) 0.14 ppm c) 0.28 ppm d) 0.53 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 24 mo After mirex application between 1974 and 1977 to control fire ants. Detection limits not given. Alabama; Georgia GC-EC

MUSCLES; LIVER; BODY; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; OTTERS; MINKS; FOXES; SKUNKS; RACOONS; BOBCATS; OPOSSUMS; ALABAMA; GEORGIA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES; BIOLOGICAL MONITORING; BIOCONCENTRATION; PESTICIDE RESIDUES
Hill, E.P.; Dent, D.M. 1985 Archives of Environmental Contamination and Toxicology 14:7-12

Opossum
DIDELPHIS MARSUPIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12445 Fetal	3	Not given	1.13 ppm Wet wt	12 mo after mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC
12446 Liver	a) 1 b) 1 c) 2 d) 2 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Trace b) 0.68 ppm c) 0.60 ppm d) 0.22 ppm e) 0.10 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC
12447 Muscle	a) 2 b) 2 c) 2 d) 3 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Trace b) 1.51 ppm c) 1.24 ppm d) 0.99 ppm e) 0.30 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC

MUSCLES; LIVER; BODY; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; OTTERS; MINKS; FOXES; SKUNKS; RACOONS; BOBCATS; OPOSSUMS; ALABAMA; GEORGIA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES; BIOLOGICAL MONITORING; BIOCONCENTRATION; PESTICIDE RESIDUES
Hill, E.P.; Dent, D.M. 1985 Archives of Environmental Contamination and Toxicology 14:7-12

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-C12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Otter, river
LUTRA CANADENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12448 Liver	a) 2 b) 3 c) 2 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.07 ppm b) 0.42 ppm c) 1.05 ppm d) 0.25 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC
12449 Muscle	a) 2 b) 2 c) 2 d) 4	a) Not given b) Not given c) Not given d) Not given	a) 0.04 ppm b) 0.59 ppm c) 3.69 ppm d) 1.40 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC

MUSCLES; LIVER; BODY; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; OTTERS; MINKS; FOXES; SKUNKS; RACOONS; BOBCATS; OPOSSUMS; ALABAMA; GEORGIA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES; BIOLOGICAL MONITORING; BIOCONCENTRATION; PESTICIDE RESIDUES
Hill, E.P.; Dent, D.M. 1985 Archives of Environmental Contamination and Toxicology 14:7-12

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12450 Liver	1	<0.1-1 mg/kg Lipid basis	Not given	Collected at Lake Sete Cidades in Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Raccoon
PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12451 Liver	a) 2 b) 1 c) 3 d) 3 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Trace b) 0.40 ppm c) 0.74 ppm d) 0.21 ppm e) 0.11 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC
12452 Muscle	a) 2 b) 1 c) 4 d) 3 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Trace b) 0.60 ppm c) 0.98 ppm d) 0.23 ppm e) 0.23 ppm Wet wt	a) Controls b) 6 mo c) 12 mo d) 18 mo e) 24 mo After mirex application between 1974 and 1977 to control fire ants. Alabama; Georgia GC-EC

MUSCLES; LIVER; BODY; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; OTTERS; MINKS; FOXES; SKUNKS; RACOONS; BOBCATS; OPOSSUMS; ALABAMA; GEORGIA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES; BIOLOGICAL MONITORING; BIOCONCENTRATION; PESTICIDE RESIDUES
Hill, E.P.; Dent, D.M. 1985 Archives of Environmental Contamination and Toxicology 14:7-12

Shoveler
ANAS CLYPEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
12453 Adipose	1	Not applicable	0.30 ug/g Wet wt	Collected 10/14/81. Juvenile, 0.47 kg, shot by hunter. New York, Hudson River GC-EC
12454 Liver	1	Not detected	Not detected	Collected 10/14/81. Juvenile, 0.47 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
12455 Muscle	1	Not detected	Not detected	Breast. Collected 10/14/81. Juvenile, 0.47 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC

ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL
Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Skunk
MEPHITIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12456 Liver	a) 1 b) 1 c) 2 d) 1	a) Not given b) Not given c) Not given d) Not given	a) Not detected b) 0.44 ppm c) 0.61 ppm d) 0.13 ppm Wet wt	a) Controls b) 6 mo c) 18 mo d) 24 mo After mirex application between 1974 and 1977 to control fire ants. Detection limits not given. Alabama; Georgia GC-EC
12457 Muscle	a) 2 b) 2 c) 2 d) 2	a) Not given b) Not given c) Not given d) Not given	a) Not detected b) 3.50 ppm c) 1.34 ppm d) 0.19 ppm Wet wt	a) Controls b) 6 mo c) 18 mo d) 24 mo After mirex application between 1974 and 1977 to control fire ants. Detection limits not given. Alabama; Georgia GC-EC

MUSCLES; LIVER; BODY; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; OTTERS; MINKS; FOXES; SKUNKS; RACOONS; BOBCATS; OPOSSUMS; ALABAMA; GEORGIA; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES; BIOLOGICAL MONITORING; BIOCONCENTRATION; PESTICIDE RESIDUES

Hill, E.P.; Dent, D.M. 1985 Archives of Environmental Contamination and Toxicology 14:7-12

Swallow, cliff
HIRUNDO PYRRHONOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12458 Carcass	133	0.06-0.13 ppm Wet wt	0.01+/-0.01 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in all 2 of 14 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; Utah; Wyoming; Idaho; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

1,3,4-Metheno-1H-cyclobuta(cd)pentalene, 1,1a,2,2,3,3a,4,5,5,5a,5b,6-do decachlorooctahydro-
2385-85-5
C10-Cl12
MW 545.59, MP 485 C, VP 6X10(E-6) mm Hg at 25 C

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
12459 Adipose	1	Not detected	Not detected	Collected 10/14/81. Juvenile, 0.37 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
12460 Muscle	1	Not detected	Not detected	Breast. Collected 10/14/81. Juvenile, 0.37 kg, shot by hunter. Detection limit 0.04 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC

ADIPOSE TISSUE; MUSCLES; LIVER; GEESE; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; DDE; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; POPULATION EXPOSURE; BIOACCUMULATION; WATERFOWL
Kim, H.T.; Kim, K.S.; Kim, J.S.; Stone, W.B. 1985 Archives of Environmental Contamination and Toxicology 14:13-18

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12461 Body	10	Not given	110+/-68 ng/g	Comparison of laboratory- and field-derived bioconcentration factors (BCFs) for 34 chemicals showed predictions based on lab BCFs useful for chemicals with short half-lives but too low for long half-life chemicals where contaminated food is major source. Lake Ontario, Ganaraska River CC; EC

FISHES; ENVIRONMENTAL EXPOSURE; BIOCONCENTRATION; CHLORINE ORGANIC COMPOUNDS; PESTICIDE RESIDUES; WATER POLLUTION; POLYCHLORINATED BIPHENYLS
Oliver, B.G.; Niimi, A.J. 1985 Environmental Science and Technology 19:842-849

1,3,4-Metheno-2H-cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
143-50-0
C10-Cl10-O
MW 490.68, VP less than 3X10(E-7) mm Hg at 25 C

Eagle, bald
HALIAEETUS LEUCOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12462 Carcass				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

(next page)

1,3,4-Metheno-2H-cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
143-50-0
C10-Cl10-O
MW 490.68, VP less than 3X10(E-7) mm Hg at 25 C

Eagle, bald
HALIAEETUS LEUCOCEPHALUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12463 Eggs				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
12464 Liver				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE, NONACHLOR, BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf				

Menhaden, Atlantic
BREVOORTIA TYRANNUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12465 Body, whole	125	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) 9.3-17.5 ug/L [sic] j) 10 7-17.8 ug/L [sic] k) 17.6-37.6 ug/L [sic] l) 0 001-5.0 ug/g	a) 0.01 ug/L [sic] b) 4.1 ug/L [sic] c) 6.3 ug/L [sic] d) 10.9 ug/L [sic] e) 23.0 ug/L [sic] f) 37.7 ug/L [sic] g) 2.52 ug/L [sic] h) 4 1 ug/L [sic] i) Not given j) Not given k) Not given l) Not given	a) Controls, no exposure b) Exposed to 2.7 ug/L water levels for 4 d, survivors c) 4.9 ug/L d) 8.8 ug/L e) 17 0 ug/L f) 31.4 ug/L g) Dead fish, day 1, 2.7 ug/L h) Day 1, 4.1 ug/L i) Day 3-4, 8.8 ug/L j) Day 2-4, 17.0 ug/L k) Day 1-3, 31.4 ug/L l) 18 d exposure to 1.5 ug/L, day 0-20, 0 8 ug/L on day 2, 80 cases, estimated from graph. Range of means for i-l). LC50 was 25.4 ug/L for 48 hr and 17.4 ug/L for 96 hr. 4 day bioconcentration factor averaged 1340. Virginia, Gloucester Point Loss of equilibrium, mild scoliosis, death GC
BODY; FISHES; AQUATIC; DELIBERATE EXPOSURE; JUVENILES; INSECTICIDES; CHLORINE ORGANIC COMPOUNDS; BIOCONCENTRATION Roberts, M.H.; Fisher, D J. 1985 Archives of Environmental Contamination and Toxicology 14:1-6				

1,3,4-Metheno-2H-cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
143-50-0
C10-Cl10-O
MW 490.68, VP less than 3X10(E-7) mm Hg at 25 C

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12466 Eggs				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS
Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

Silverside, Atlantic
MENIDIA MENIDIA

Tissue	Cases Exposure Route	Range	Mean	General Information
12467 Body, whole	140	a) Not given b) Not given c) Not given d) Not given e) 7.0-12.0 ug/L [sic] f) 1.9-11.4 ug/L [sic] g) 7.3-20.7 ug/L [sic] h) 11.3-29.6 ug/L [sic] i) 16.9-32.3 ug/L [sic] j) 0.09-2.2 ug/g k) 2.2-1.8 ug/g l) 0.04-0.045 ug/g m) 0.45-0.40 ug/g	a) 0.03 ug/L [sic] b) 10.7 ug/L [sic] c) 21.3 ug/L [sic] d) 30.5 ug/L [sic] e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given k) Not given l) Not given m) Not given	a) 4 day acute study, no exposure, controls b) Exposed to 13 ug/L in water for 4 day, survivors c) 23 ug/L d) 45 ug/L e) Dead fish, day 3-4, 13 ug/L f) Day 1-4, 23 ug/L g) Day 1-4, 45 ug/L h) Day 1-4, 62 ug/L i) Day 1-2, 109 ug/L j) 28 day exposure to 0.80 ug/L, day 1-30 k) Day 30-56 l) 28 day exposure to 0.08 ug/L, day 1-30 m) Day 30-56 Range of means for e-m). LC50 was 140.5 ug/L for 48 hr and 28.8 ug/L for 96 hr. 4 day bioconcentration factor averaged 810. Virginia, Gloucester Point Loss of equilibrium, mild scoliosis, death GC

BODY; FISHES; AQUATIC; DELIBERATE EXPOSURE; JUVENILES; INSECTICIDES; CHLORINE ORGANIC COMPOUNDS; BIOCONCENTRATION
Roberts, M.H ; Fisher, D J. 1985 Archives of Environmental Contamination and Toxicology 14:1-6

1,3,5-Trichloro-2-(4-nitrophenoxy)benzene (No postings in CHEMLINE).

Bass, sea
LATEOLABRAX JAPONICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12468 Gall bladder	3	Not given	1,660 ppb Wet wt	Caught 8/77 in northern part of Tokyo Bay. Japan, Tokyo Bay

(next page)

1,3,5-Trichloro-2-(4-nitrophenoxy)benzene (No postings in CHEMLINE).

Bass, sea
LATEOLABRAX JAPONICUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12469 Gills	3	Not given	44 ppb Wet wt	Caught 8/77 in northern part of Tokyo Bay. Measured in gill lamella. Japan, Tokyo Bay
12470 Heart	3	Not given	210 ppb Wet wt	Caught 8/77 in northern part of Tokyo Bay. Japan, Tokyo Bay
12471 Kidney	3	Not given	1,520 ppb Wet wt	Caught 8/77 in northern part of Tokyo Bay. Japan, Tokyo Bay
12472 Liver	3	Not given	1,350 ppb Wet wt	Caught 8/77 in northern part of Tokyo Bay. Japan, Tokyo Bay
12473 Muscle	3	Not given	43 ppb Wet wt	Caught 8/77 in northern part of Tokyo Bay. Japan, Tokyo Bay
HERBICIDES; FISHES; MOLLUSKS; ENVIRONMENTAL EXPOSURE; AQUATIC; PESTICIDE RESIDUES; MUSCLES; GILLS; LIVER; KIDNEYS; HEART; VISCERA; BODY; GALL BLADDER; JAPAN; WATER POLLUTION Yamagishi, T.; Akiyama, K. 1981 Archives of Environmental Contamination and Toxicology 10:627-635				

Clam, short-necked
TAPES PHILIPPINARUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12474 Body		a) 1-2,900 ppb b) Not detected-24 ppb c) Not detected-19 ppb Wet wt	a) Not given b) Not given c) Not given	a) 5/77-9/77 b) 5/78-9/78 c) 5/79-9/79 91 collected monthly (May-Sept) at 5 stations along coast of Tokyo Bay. Levels measured in shucked clams. Highest 1977 levels found in clams near mouth of Miyako River. Detection limit 0.2 ppb wet wt. Japan, Tokyo Bay
12475 Muscle		Not given	5.0+/-0.8 ppb Wet wt	Mean of 3 samples, each with 30 shellfish, collected along the coast of Tokyo Bay. Japan, Tokyo Bay
12476 Viscera		Not given	23.5+/-1.6 ppb Wet wt	Mean of 3 samples, each with 30 shellfish, collected along the coast of Tokyo Bay. Japan, Tokyo Bay
HERBICIDES; FISHES; MOLLUSKS; ENVIRONMENTAL EXPOSURE; AQUATIC; PESTICIDE RESIDUES; MUSCLES; GILLS; LIVER; KIDNEYS; HEART; VISCERA; BODY; GALL BLADDER; JAPAN; WATER POLLUTION Yamagishi, T.; Akiyama, K. 1981 Archives of Environmental Contamination and Toxicology 10:627-635				

1,3,5-Trichloro-2-(4-nitrophenoxy)benzene (No postings in CHEMLINE).

Fish
ZACCO PLATYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12477 Body	15	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 76.3 ppb b) 32.0 ppb c) 20.2 ppb d) 16.4 ppb e) 19.7 ppb Wet wt	a) Collected at Oyama, body wt 16.1-18.6 g b) Kano, body wt 15.4-18.7 g c) Nogi, body wt 2.3-16.2 g d) Noda, body wt 2.3-5.5 g e) Nagareyama, 23.5-23.7 g From the Tone River in 6/79. Triplicate analyses of pooled sample of 3 fish/site. Sites were arranged from upper to down stream. Japan

HERBICIDES; FISHES; MOLLUSKS; ENVIRONMENTAL EXPOSURE; AQUATIC; PESTICIDE RESIDUES; MUSCLES; GILLS; LIVER; KIDNEYS; HEART; VISCERA; BODY; GALL BLADDER; JAPAN; WATER POLLUTION
Yamagishi, T.; Akiyama, K. 1981 Archives of Environmental Contamination and Toxicology 10:627-635

Goby-fish
ACANTHOGOBIUS FLAVIMANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12478 Liver		a) 59-91,400 ppb b) 3-63 ppb Wet wt	a) Not given b) Not given	a) Collected 8/77 b) 8/78 From 12 different sampling stations along the coast of Tokyo Bay. Japan, Tokyo Bay
12479 Muscle		a) 1-360 ppb b) 0.1-0.3 ppb Wet wt	a) Not given b) Not given	a) Collected 8/77 b) 8/78 From 12 different sampling stations along the coast of Tokyo Bay. Japan, Tokyo Bay

HERBICIDES; FISHES; MOLLUSKS; ENVIRONMENTAL EXPOSURE; AQUATIC; PESTICIDE RESIDUES; MUSCLES; GILLS; LIVER; KIDNEYS; HEART; VISCERA; BODY; GALL BLADDER; JAPAN; WATER POLLUTION
Yamagishi, T.; Akiyama, K. 1981 Archives of Environmental Contamination and Toxicology 10:627-635

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)
309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12480 Body		Not applicable	<0.003 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12481 Body		Not applicable	<0.003 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD, DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12482 Body		Not applicable	<0.003 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)
309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12483 Body		Not applicable	<0.003 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12484 Body		Not applicable	<0.003 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)

309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12485 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) <0.003 mg/kg b) <0.003 mg/kg c) <0.003 mg/kg d) <0.003 mg/kg e) <0.003 mg/kg f) <0.003 mg/kg g) <0.003 mg/kg h) <0.003 mg/kg i) <0.003 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and *Toxicology* 14:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
12486 Muscle	2	Not given	1.747+/-1.153 ug/g fat	From samples with mean of 3.67% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. *India*, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H ; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12487 Body, whole		Not given	0.05 ug/g Wet wt Geometric	Collected 6/81 from Henderson Lake. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; *SELENIUM*; *LEAD*; *MERCURY*; *ZINC*; *POLYCHLORINATED* BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)

309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12488 Body		Not applicable	<0.003 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 *Archives of Environmental Contamination and Toxicology* 14:587-594

Fish (A. spinifer)
ARGYROPS SPINIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12489 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 69.2 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.1 ug/kg. Egypt GLC

MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES
El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227

Fish (A. vorax)
ASPIUS VORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
12490 Muscle	2	Not given	1.879+/-0.619 ug/g fat	From samples with mean of 1.76% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)

309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Fish (B. belaweyi)
BARBUS BELAWEYI

Tissue	Cases Exposure Route	Range	Mean	General Information
12491 Muscle	4	Not given	2.342+/-0.111 ug/g fat	From samples with mean of 1.36% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. *1986* *Bulletin of Environmental* Contamination and Toxicology 36:109-113				

Fish (B. grypus)
BARBUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12492 Muscle	11	a) Not given b) Not given	a) 0.925+/-0.616 ug/g b) 0.807+/-0.801 ug/g Fat basis	a) From samples with >2% fat (mean 3.03%), older animals b) <2% fat (mean 0.89%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (B. luteus)
BARBUS LUTEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12493 Muscle	6	a) Not given b) Not given	a) 0.711 ug/g b) 0.752+/-0.689 ug/g Fat basis	a) From samples with >2% fat (mean 2.10%), older animals b) <2% fat (mean 0.60%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)

309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Fish (B. xanthopterus)
BARBUS XANTHOPTERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12494 Muscle	6	a) Not given b) Not given	a) 0.805+/-0.825 ug/g b) 1.449+/-1.505 ug/g Fat basis	a) From samples with >2% fat (mean 3.05%), older animals b) <2% fat (mean 1.44%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (C. regius)
CHONDROSTOMA REGIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12495 Muscle	19	a) Not given b) Not given	a) 0.876+/-0.720 ug/g b) 2.284+/-1.078 ug/g Fat basis	a) From samples with >2% fat (mean 3.84%), older animals b) <2% fat (mean 1.06%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (G. ruffa)
GARRA RUFFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12496 Muscle	2	Not given	1.061+/-0.596 ug/g fat	From samples with mean of 4.25% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)
309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Fish (H. fossilis)
HETEROPNEUSTES FOSSILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12497 Muscle	3	a) Not given b) Not given	a) 0.426 ug/g b) 3.760 ug/g Fat basis	a) From samples with >2% fat (mean 2.58%), older animals b) <2% fat (mean 1.80%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA *Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113*				

Fish (L. abu)
LIZA ABU

Tissue	Cases Exposure Route	Range	Mean	General Information
12498 Muscle	11	a) Not given b) Not given	a) 2.217+/-1.097 b) 1.806+/-1.453 ug/g Fat basis	a) From samples with >2% fat (mean 2.40%), older animals b) <2% fat (mean 0.94%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (M. pelusius)
MYSTUS PELUSIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12499 Muscle	4	Not given	0.468+/-0.662 ug/g fat	From samples with mean of 0.47% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)

309-00-2

C12-H8-Cl6

MW 365.93, MP 104 C, VP 6X10(E-6) *mm Hg* at 25 C

Fish (S. auratus)

SPARUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12500 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.1 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish (S. aurita)

SARDINELLA AURITA

Tissue	Cases Exposure Route	Range	Mean	General Information
12501 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.1 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish (S. vulgaris)

SOLEA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12502 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.1 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)
309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Fish (Saurida sp.)
SAURIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12503 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.1 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish (Trichurus sp.)
TRICHURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12504 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.1 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12505 Body		a) Not applicable b) Not applicable	a) <0.003 mg/kg b) <0.003 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)

309-00-2

C12-H8-Cl6

MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Planaria

PHAGOCATA GRACILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12506 Body	Ingestion	0.14+/-0.05-1.12+/-0.99 ng/mg Wet wt S.E.	Not given	Range of means 20 and 40 min after 1 hr feeding. Animals maintained in lab 1 wk before testing, then each group of 20 worms fed 0.25 g beef liver perfused with corn oil containing 125 ppm. Levels 0.27+/-0.08 ng/mg (S.E.) immediately after, and 0.16+/-0.04 ng/mg (S.E.) 180 min after feeding. Tennessee, DeKalb County GC

BODY; PLANARIA; AQUATIC; DELIBERATE EXPOSURE; TENNESSEE; ALDRIN; PESTICIDES; PESTICIDE RESIDUES

Post, S.; Wells, M.R. 1985 Bulletin of Environmental Contamination and Toxicology 34:871-875

Shad, gizzard

DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12507 Body, whole		Not given	0.01 ug/g Wet wt Geometric	Collected 6/81 from Henderson Lake. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS

Winger, P.V.; Andreasen, J K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Sucker, redhorse

MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12508 Body		Not applicable	<0.003 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, endo,exo- (8 CI) 1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (9 CI)

309-00-2
C12-H8-Cl6
MW 365.93, MP 104 C, VP 6X10(E-6) mm Hg at 25 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
12509 Body		Not applicable	<0.003 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12510 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.003 mg/kg b) <0.003 mg/kg c) <0.003 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Bass, rock

AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12511 Body		Not applicable	<0.002 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bluegill

LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12512 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead

ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12513 Body		Not applicable	0.01 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12514 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12515 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Carp

CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12516 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg c) <0.002 m/gkg d) <0.002 mg/kg e) 0.01 mg/kg f) <0.002 mg/kg g) 0.01 mg/kg h) <0.002 mg/kg i) 0.005 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
12517 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12518 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) 0.022 ppm c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Mean b) exceeded by S.E. Louisiana GC-EC
12519 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12520 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Crappie, black

POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12521 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Crayfish

PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
12522 Body, whole	50	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 10 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12523 Adipose	12 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) *Not detected* b) 3.05+/-0.189 ppm c) 16.00+/-1.155 ppm d) Not detected e) 3.83+/-0.163 ppm f) 22.67+/-1.145 ppm S.E.	a) *Males, controls fed 0.0 ppm* b) Males fed 0.5 ppm c) Males fed 3.0 ppm d) Females, controls e) *Females fed 0.5 ppm* f) *Females fed 3.0 ppm* Dietary treatment for 8-wk pre-oviposition period and 12-wk oviposition period. In 3.0 ppm treatment females had 36.6% more fat than males. Detection limits not given. Micro alumina column

PESTICIDE RESIDUES; PESTICIDES; DUCKS; AQUATIC; WATERFOWL; ADIPOSE TISSUE; EGGS; DELIBERATE EXPOSURE; CHLORINATED HYDROCARBONS
Roylance, K.J.; Jorgensen, C.D.; Booth, G M.; Carter, M.W. 1985 Archives of Environmental Contamination and *Toxicology 14:705-711*

Tissue	Cases Exposure Route	Range	Mean	General Information
12524 Adipose	a) 3 b) 3 c) 7 d) 7 e) 7 f) 7 Ingestion	a) Not given b) Not detected-*0.26* ppm c) Not given d) Not given e) Not given f) Not given	a) Not detected b) *0.12 ppm* c) 6.4+/-0.88 ppm d) 7.6+/-0.40 ppm e) 16+/-0.9 ppm f) 11+/-1.5 ppm S.E. Wet wt	a) Male controls, no endrin b) Female controls c) Males fed 1 ppm in dry duck mash d) Females e) Males fed 3 ppm f) *Females* Fed starting 12/7 through study termination on 7/21. Detection limit 0.05 ppm. Mean in b) calculated by extractor using detection limit value for 2 of the 3 animals. 3 ppm group: hatched clutches later, had lower hatching success and survival of ducklings (at 21 d) than in a),b). Some stimulatory effects at 1 ppm. GC-EC
12525 Brain	2	0.47-2.0 ppm Wet wt	1.24 ppm Wet wt	*Fed 3 ppm in dry duck mash from 12/7-4/28. Mean calculated by extractor.* *Death. Higher level diagnostically lethal.*
12526 Carcass	a) 3 b) 3 c) 7 d) 7 e) 7 f) 7 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) Not detected c) 1.1+/-0.38 ppm d) 1.0+/-0.13 ppm e) 2.4+/-0.33 ppm f) 2.5+/-0.49 ppm S.E. Wet wt	a) Male controls, no endrin b) Female controls c) Males fed 1 ppm in dry duck mash d) Females e) Males fed 3 ppm f) Females Fed starting 12/7 through study termination on 7/21. Detection limit 0.05 ppm. 3 ppm group: hatched clutches later, had lower hatching success and survival of ducklings (at 21 d) than in a),b). Some stimulatory effects at 1 ppm. GC-EC

DELIBERATE EXPOSURE; AQUATIC; DUCKS; CARCASS; BRAIN; ADIPOSE TISSUE; EGGS; ENDRIN; PESTICIDES; PESTICIDE RESIDUES; REPRODUCTIVE EFFECTS; BIRDS; BIOACCUMULATION; FOOD CONTAMINATION; WATERFOWL
Spann, J.W.; Heinz, G.H.; Hulse, C.S. 1986 Environmental Toxicology and Chemistry 5:755-759

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Duck, *mallard*

ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12527 Eggs	10	a) Not given b) Not given c) Not given	a) Not detected b) 0.43 ppm c) 2.75 ppm	a) Controls fed 0.0 ppm b) Fed 0.5 ppm c) Fed 3.0 ppm Dietary treatment. Combined samples from adults. One egg collected from each treatment regimen at 2-wk intervals during 12-wk oviposition period. Detection limits not given.

PESTICIDE RESIDUES; PESTICIDES; DUCKS; AQUATIC; WATERFOWL; ADIPOSE TISSUE; EGGS; DELIBERATE EXPOSURE; CHLORINATED HYDROCARBONS

Roylance, K.J.; Jorgensen, C.D.; *Booth*, G.M.; Carter, M.W. 1985 Archives of Environmental Contamination and Toxicology 14:705-711

Tissue	Cases Exposure Route	Range	Mean	General Information
12528 Eggs	a) 3 b) 27 c) 25 Ingestion	a) Not given b) Not given c) Not given	a) Not detected b) 1.1+/-0.06 ppm c) 2.9+/-0.16 ppm S.E. Wet wt	a) Controls, fed no endrin b) Hens fed 1 ppm in dry *duck mash* c) Fed 3 ppm Fed starting 12/7 through study termination on 7/21. Detection limit 0.05 ppm. 3 ppm group: hatched clutches later, had lower hatch*ing* success and survival of duck*lings* (at 21 d) than in a),b). Some stimulatory effects at 1 ppm. GC-EC

DELIBERATE EXPOSURE; AQUATIC; DUCKS; CARCASS; BRAIN; ADIPOSE TISSUE; EGGS; ENDRIN; PESTICIDES; PESTICIDE RESIDUES; REPRODUCTIVE EFFECTS; BIRDS; BIOACCUMULATION; FOOD CONTAMINATION; WATERFOWL

Spann, J.W.; Heinz, G.H.; Hulse, C.S. 1986 Environmental Toxicology and Chemistry 5.755-759

Egret, *cattle*

BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12529 Brain	a) 2 b) 1 c) 3	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible *dieldrin* poisoning, 5/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Egret, cattle
BUBULCUS IBIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12530 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135				

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12531 Brain	a) 4 b) 1	a) Not detected b) Not applicable	a) Not detected b) 0.42 ppm Wet wt	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12532 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.30 ppm Wet wt	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides* Monitoring Journal 14(4):125-135				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Egret, snowy
EGRETTA THULA

Tissue	Cases	Exposure Route	Range	Mean	General Information
12533 Brain	1		Not detected	Not detected	Dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
12534 Carcass	a) 6 b) 1 c) 1 d) 1		a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Fish

Tissue	Cases	Exposure Route	Range	Mean	General Information
12535 Body			0.00-0.30 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=2.4 ug/g. Part of National Pesticides Monitoring Program. United States GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING

Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Fish (A. spinifer)
ARGYROPS SPINIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12536 *Muscle*	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.1 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES *El-Dib, M.A.; Badawy, M.I.* 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish (S. auratus)
SPARUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12537 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 55.43 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS, BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish (S. aurita)
SARDINELLA AURITA

Tissue	Cases Exposure Route	Range	Mean	General Information
12538 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 5.33 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), *also reported as* 245 C (decomp)

Fish (S. vulgaris)

SOLEA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12539 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 7.63 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC

MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES

El-Dib, M.A.; Badawy, M.I. 1985 *Bulletin of Environmental Contamination and Toxicology* 34:216-227

Fish (Saurida sp.)

SAURIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12540 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 70.0 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC

MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES

El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227

Fish (T. nilotica)

TILAPIA NILOTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12541 Muscle	a) 11 b) 12	a) <0.15 ug/kg b) <0.15 ug/kg Wet wt	a) <0.15 ug/kg b) <0.15 ug/kg Wet wt	a) Idku Lake b) Maryut Lake Nile Delta lakesite of collection. Proposed species studied be used as biomonitors for pesticide contamination. Egypt GC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; EGYPT; PESTICIDES; LINDANE; DDT; DDD; DDE; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION; BIOLOGICAL MONITORING

Badawy, M.I.; El-Dib, M.A. 1984 Environment International 10:3-8

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Fish (T. zillii)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
12542 Muscle	a) 20 b) 14	a) <0.15-1.7 ug/kg b) <0.15-2.4 ug/kg Wet wt	a) 1.12 ug/kg b) 0.95 ug/kg Wet wt	a) El-Manzala Lake b) El-Burullus Lake Nile Delta lakesite of collection. Proposed species studied be used as biomonitors for pesticide contamination. Egypt GC
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; EGYPT; PESTICIDES; LINDANE; DDT; DDD; DDE; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION; BIOLOGICAL MONITORING Badawy, M.I.; El-Dib, M.A. 1984 Environment International 10:3-8				

Fish (Trichurus sp)
TRICHURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12543 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 0.1 ug/kg c) 8.4 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
12544 Liver	1	Not applicable	<0.1 mg/kg	Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Fish, parrot

SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
12545 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected from local fish market in Porto Santo, East of Madeira. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Fish, scorpion

SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12546 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected off Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 Cl) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 Cl)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Frog
RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12547 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. *Louisiana* GC-EC
12548 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Heron, black-crowned night

NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
12549 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Wisconsin, adult, 8/78 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12550 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable f) Not detected g) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.23 ppm f) Not detected g) Not detected Wet wt	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
12551 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected b) Not detected-0.22 ppm c) Not detected-0.20 ppm d) Not detected e) Not detected f) Not detected g) Not detected-0.86 ppm h) Not detected-0.60 ppm Wet wt	a) Not detected b) Not applicable c) Not applicable d) Not detected e) Not detected f) Not detected g) Not applicable h) Not applicable Wet wt	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-5/79 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12552 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected c) Not detected-0.19 ppm d) Not detected e) Not detected f) Not detected g) Not detected-0.55 ppm h) Not applicable Wet wt	a) Not detected b) Not detected c) Not applicable d) Not detected e) Not detected f) Not detected g) Not applicable h) 0.20 ppm Wet wt	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; *LOUISIANA*, *MARYLAND*; *MASSACHUSETTS*; MICHIGAN; *MINNESOTA*; *NEBRASKA*; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; *NONACHLOR*; *PESTICIDES*; *POLYCHLORINATED BIPHENYLS*; *BIOACCUMULATION*; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12553 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINATED BIPHENYLS; BIOACCUMULATION; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED ORGANIC COMPOUNDS; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12554 Carcass	a) 6 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINATED BIPHENYLS; BIOACCUMULATION; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED ORGANIC COMPOUNDS; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12555 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINATED BIPHENYLS; BIOACCUMULATION; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED ORGANIC COMPOUNDS; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12556 Body, whole	10	a) Not given b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.014 ppm b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Mean a) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Tissue	Cases Exposure Route	Range	Mean	General Information
12557 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12558 Blood, serum		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 0.52+/-0.02 ng/ul b) 1.06+/-0.05 ng/ul c) 0.44+/-0.08 ng/ul d) 0.56+/-0.02 ng/ul e) 0.66+/-0.04 ng/ul f) 1.11+/-0.05 ng/ul g) 0.70+/-0.07 ng/ul h) 0.60+/-0.07 ng/ul	a) Exposed for 1 hr to endrin b) Exposed for 4 hr c) Exposed for 1 hr to endrin after 4-hr pretreatment with DDT d) Exposed for 4 hr after pretreatment e) Exposed for 1 hr to DDT and endrin f) Exposed for 4 hr g) 1 hr after transfer to untreated water following 4-hr exposure to endrin h) 4 hr after transfer Insecticide levels, 3.94 nM, maintained minimum 24 hr in lab before testing. Mississippi Scintillation counting
12559 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 0.22+/-0.02 ng/mg b) 0.48+/-0.01 ng/mg c) 0.08+/-0.02 ng/mg d) 0.26+/-0.02 ng/mg e) 0.14+/-0.07 ng/mg f) 0.27+/-0.02 ng/mg g) 0.32+/-0.05 ng/mg h) 0.25+/-0.06 ng/mg Wet wt	a) Exposed for 1 hr to endrin b) Exposed for 4 hr c) Exposed for 1 hr to endrin after 4-hr pretreatment with DDT d) Exposed for 4 hr after pretreatment e) Exposed for 1 hr to DDT and endrin f) Exposed for 4 hr g) 1 hr after transfer to untreated water following 4-hr exposure to endrin h) 4 hr after transfer Insecticide levels, 3.94 nM, maintained minimum 24 hr in lab before testing. Mississippi Scintillation counting
12560 Gall bladder		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) 0.30+/-0.05 ng/mg b) 0.82+/-0.10 ng/mg c) 0.16+/-0.02 ng/mg d) 0.36+/-0.06 ng/mg e) 0.21+/-0.01 ng/mg f) 0.36+/-0.08 ng/mg g) 0.35+/-0.03 ng/mg h) 0.40+/-0.03 ng/mg Wet wt	a) Exposed for 1 hr to endrin b) Exposed for 4 hr c) Exposed for 1 hr to endrin after 4-hr pretreatment with DDT d) Exposed for 4 hr after pretreatment e) Exposed for 1 hr to DDT and endrin f) Exposed for 4 hr g) 1 hr after transfer to untreated water following 4-hr exposure to endrin h) 4 hr after transfer Insecticide levels, 3.94 nM, maintained minimum 24 hr in lab before testing. Mississippi Scintillation counting

BODY; BLOOD SERUM; GALL BLADDER; FISHES; AQUATIC; DELIBERATE EXPOSURE; MISSISSIPPI; INSECTICIDES; DDT; ALDRIN; ENDRIN; DDE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDES

Denison, M.S.; Chambers, J.E.; Yarbrough, J.D. 1985 Archives of Environmental Contamination and Toxicology 14:315-320

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Mullet
MUGIL CEPHALICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12561 Muscle	a) 10 b) 12 c) 3 d) 12	a) 0.66-3.3 ug/kg b) <0.15-2.6 ug/kg c) <0.15-<0.15 ug/kg d) <0.15-9.5 ug/kg Wet wt	a) 1.12 ug/kg b) 0.65 ug/kg c) <0.15 ug/kg d) 3.71 ug/kg Wet wt	a) El-Manzala Lake b) El-Burullus Lake c) Idku Lake d) Maryut Lake Nile Delta lakesite of collection. Propose that species studied used as biomonitors for pesticide contamination. Egypt GC
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; EGYPT; PESTICIDES; LINDANE; DDT; DDD; DDE; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION; BIOLOGICAL MONITORING Badawy, M.I.; El-Dib, M.A. 1984 Environment International 10:3-8				

Pelican, American white
PELECANUS ERYTHRORHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12562 Body	a) 2 b) 9 c) 1 d) 4 e) 3 f) 1 g) 2 h) 1 i) 1 j) 7 k) 1 l) 2 m) 4	Not detected-0.6 Wet wt	Not given	Found dead 1976. Detection limit 0.1 ppm. California, Lower Klamath National Wildlife Refuge GLC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Pelican, American white
PELECANUS ERYTHRORHYNCHOS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12563 Brain	a) 2 b) 9 c) 1 d) 4 e) 3 f) 1 g) 2 h) 1 i) 1 j) 7 k) 1 l) 2 m) 4	a) Not detected-0.6 ppm b) Not given c) Not applicable d) Not given e) Not detected-0.6 ppm f) Not applicable g) Not detected-0.6 ppm h) Not applicable i) Not applicable j) Not detected-0.6 ppm k) Not applicable l) Not detected-0.6 ppm m) Not given Wet wt	a) Not given b) >0.8 ppm c) 0.74 ppm d) >0.8 ppm e) Not given f) >0.8 ppm g) Not given h) 0.69 ppm i) >0.8 ppm j) Not given k) >0.8 ppm l) Not given m) >0.8 ppm Wet wt	a) Found dead, Lower Klamath National Wildlife Refuge (NWR), 1975 b) 1975 c) 1976 d) 1976 e) 1978 f) 1978 g) 1980 h) 1980 i) 1980 j) 1981 k) 1981 l) Found dead, Still water NWR, 1980 m) 1981 Detection limit 0.1 ppm 10/11 found dead in 1981 in Klamath Basin NWRs were females. Levels in brains of 16 exceeded 0.8 ppm wet wt-level generally considered lethal. California GLC
12564 Eggs	10	a) Not detected-0.20 ppm b) Not detected-0.18 ppm Wet wt	a) Not given b) Not given	a) Collected 1969, detected in 1/10 b) Collected 1981, detected in 2/35 Detection limit 0.1 ppm. California, Klamath Basin National Wildlife Refuges GLC
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; EGGS; BODY; BRAIN; DDT; DDE; CALIFORNIA; DIELDRIN; WATERFOWL; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; BIOLOGICAL MONITORING; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; PESTICIDES Boellstorff, D.E.; Ohlendorf, H.M.; Anderson, D.W.; O'Neill, E.J.; Keith, J.O.; Prouty, R.M. 1985 Archives of Environmental Contamination and Toxicology 14:485-493				

Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
12565 Ovary				
REVIEW; BODY; LIVER; BRAIN; HEART; KIDNEYS; MUSCLES; BONES; VERTEBRAE; EGGS; EAR; AQUATIC; FISHES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; ADULTS; AGE; JUVENILES; FETUS; CADMIUM; CHROMIUM; COPPER; IRON; LEAD; MANGANESE; MERCURY; NICKEL; SELENIUM; ZINC; BIOACCUMULATION; FOOD CONTAMINATION; POPULATION EXPOSURE Eisler, R. 1984 Biological Trace Element Research 6:165-180				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
12566 Ovary		a) Not given b) Not given c) Not given d) Not given	a) 0.008 ug/g b) 0.02 ug/g c) 0.02 ug/g d) 0.01 ug/g	a) Lake Erie b) Wauseon Reservoir c) New London Reservoir d) Findlay Reservoir 1978. *Ohio* Bilateral asymmetry
BODY; OVARIES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; OHIO; WISCONSIN; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; POPULATION EXPOSURE; BIOINDICATORS Carline, R.F.; Lawal, M.V. 1985 Environmental Toxicology and Chemistry 4:543-547				

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12567 Eggs	1	Not applicable	0.08 ug/g Wet wt	1979 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12568 Body		a) Not applicable b) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Pike, northern

ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12569 Liver	1	Not applicable	2 mg/kg Lipid basis	Collected at Lake Sete Cidades in Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Raccoon

PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12570 Muscle	10	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U ; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Reindeer

RANGIFER sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12571 Body	2 Ingestion	36-58.37 ug	47.19 ug	Total burden in 3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 2000 ug. Means calculated by extractor. Sweden, Lake Rogen district
12572 Liver	2 Ingestion	0.55-0.72 ng/g	0.63 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 2000 ug. Means calculated by extractor. Value lower in 4-yr old. Sweden, Lake Rogen district

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Reindeer
RANGIFER sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12573 Muscle	2 Ingestion	1.45-2.4 ng/g	1.92 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 2000 ug. Means calculated by extractor. Sweden, Lake Rogen district
ENVIRONMENTAL EXPOSURE; DEER; BODY; MUSCLES; LIVER; SWEDEN; *TERRESTRIAL; FOOD CONTAMINATION;* ANIMAL FEEDS; POLYCHLORINATED BIPHENYLS; DDD; DDE; LINDANE; HEXACHLOROBENZENE; PESTICIDES Villeneuve, J.P.; Holm, E.; Cattini, C. 1985 Chemosphere 14(11/12):1651-1658				

Shad
DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12574 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)
72-20-8
C12-H8-Cl6-O
MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Snake, water
NATRIX sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12575 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) Not detected	a) Lake Verret b) Plaquemine-Brule Bayou c) East Franklin Site of collection in 1979. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12576 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
12577 Body		Not applicable	<0.002 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,endo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)- (9 CI)

72-20-8

C12-H8-Cl6-O

MW 380.9, MP 200 C (decomp), also reported as 245 C (decomp)

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12578 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 0%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; *CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN;* POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12579 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg c) <0.002 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; *HEPTACHLOR EPOXIDE;* HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; *BIOLOGICAL MONITORING;* OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Barbel

CLARIAS GARIEPINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12580 Adipose	3	0.38-1.33 mg/kg	0.87 mg/kg	Fat extracted from muscle, liver and skin. Collections in 1978 from Olifants River (near Marble Hall, 200 km NE of Pretoria), Olifants River Dame (near Phalaborwa, 450 km NE of Pretoria), Letalea River (Hans Merensky Nature Reserve). South Africa GC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS

Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251

Bass, largemouth

MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
12581 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.02 ug/g b) Not detected c) Not detected d) 0.01 ug/g Wet wt Geometric	a) 1 composite sample from Lake Verret b) 1 from Bayou Petite Prairie c) 2 from Spring Bayou d) 3 from Raccouri Old River Collected 6/81, 2.3-6.6% lipids, wt 307-431 g. Detection limits <0.01 ug/g. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS

Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Tissue	Cases Exposure Route	Range	Mean	General Information
12582 Body, whole	132	15-182 ug/kg Wet wt	56 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES

Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12583 Body		Not applicable	<0.002 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; *POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING*; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bass, striped
MORONE SAXATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12584 Eggs	2	1.77-3.33 ug/g	0.09 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC
12585 Gonads	10	0.06-0.11 ug/g	0.08 ug/g	Collected Rock hall Region, April 1979. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC
12586 Muscle	a) 1 b) 10	a) Not applicable b) 0.055 ug/g	a) Not detected b) 0.01-0.02 ug/g	a) Collected Patapsco River, spring, 1976 b) Collected Rock hall Region, April 1979 Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC
ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; *BIOLOGICAL MONITORING; TREND MONITORING* Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
12587 Adipose				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
12588 Body, whole				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
12589 Brain				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
12590 Carcass				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
12591 Gastrointestinal tract				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
12592 Liver				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
12593 Milk				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico

ENVIRONMENTAL EXPOSURE; REVIEW; DELIBERATE EXPOSURE; TERRESTRIAL; BATS; CARCASS; BODY; LIVER; ADIPOSE TISSUE; BRAIN; GASTROINTESTINAL SYSTEM; MAMMARY GLANDS; MILK; HEART; LUNGS; KIDNEYS; SKIN; MUSCLES; HAIR; PESTICIDES; PESTICIDE RESIDUES; INSECTICIDES; DDT; DDD; DDE; DIELDRIN; LINDANE; POLYCHLORINATED BIPHENYLS; MIREX; HEPTACHLOR EPOXIDE; OXYCHLORDANE; SELENIUM; MERCURY; LEAD; METALS

Clark, D R. 1981 U.S. Department of the Interior, Special Scientific Report - Wildlife No. 235, 27 pp.

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Blackbird, Brewer's
EUPHAGUS CYANOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12594 Carcass	25	Not detected-0.05 ppm Wet wt	<0.01 ppm Wet wt	Detected in 1/25 individuals. Migratory omnivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Colorado; Utah; Wyoming; Idaho; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12595 Body		Not applicable	0.01 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
12596 Body	3-5/site	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable	a) 0 mg/kg b) 0 mg/kg c) 0.102 mg/kg d) 0 mg/kg e) 0.092 mg/kg f) 0 mg/kg g) 0 mg/kg h) 0.027 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Firebaugh c) At Fremont Ford State Recreational Area d) Near Crow's Landing e) At South County Park f) Salt Slough below Lander Avenue g) Merced River below CA highway h) At George J. Hatfield State Recreational Area Organochlorine levels generally increased downstream, irrigated agriculture areas. July, 1981. Detection limit 0.010 mg/kg. California, San Joaquin Valley GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; PESTICIDES; INDUSTRIAL CHEMICALS; CALIFORNIA; CHLORDANE; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; WATER POLLUTION; INSECTICIDES; HERBICIDES; BODY

Saiki, M.K.; Schmitt, C.J. 1986 Archives of Environmental Contamination and Toxicology 15:357-366

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Buffalo, smallmouth

ICTIOBUS BUBALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12597 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.01 ug/g b) 0.01 ug/g c) 0.01 ug/g d) 0.01 ug/g Wet wt Geometric	a) 2 composite samples from Lake Fausse Point b) 1 from Bayou Petite Prairie c) 1 from Spring Bayou d) 1 from Raccouri Old River Collected 6/81, 0.5-8.8% lipids, wt 687-1030 g. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Bullhead

ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12598 Body		Not applicable	0.01 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead, brown

ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12599 Body		Not applicable	0.06 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12600 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12601 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) 0.02 mg/kg b) <0.002 mg/kg c) <0.002 mg/kg d) 0.02 mg/kg e) 0.15 mg/kg f) 0.01 mg/kg g) 0.09 mg/kg h) 0.02 mg/kg i) 0.02 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Carp

CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12602 Body	3-5/site	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable	a) 0 mg/kg b) 0 mg/kg c) 0.710 mg/kg d) 0 mg/kg e) 0.873 mg/kg f) 0.621 mg/kg g) 0 mg/kg h) 0.197 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Firebaugh c) At Freemont Ford State Recreational Area d) Near Crow's Landing e) At South County Park f) Salt Slough below Lander Avenue g) Merced River below CA highway h) At George J. Hatfield State Recreational Area Organochlorine levels generally increased downstream, irrigated agriculture areas. July, 1981. Detection limit 0.010 mg/kg. California, San Joaquin Valley GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES, PESTICIDES; INDUSTRIAL CHEMICALS; CALIFORNIA; CHLORDANE; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; WATER POLLUTION; INSECTICIDES; HERBICIDES; BODY

Saiki, M.K.; Schmitt, C.J. 1986 Archives of Environmental Contamination and Toxicology 15:357-366

Tissue	Cases Exposure Route	Range	Mean	General Information
12603 Body, whole	536	13-62 ug/kg Wet wt	36 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES

Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122

Tissue	Cases Exposure Route	Range	Mean	General Information
12604 Liver	1	Not applicable	6 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (*1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha*)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Carpsucker, river
CARPIODES CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12605 Body, whole	302	7-197 ug/kg Wet wt	63 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122				

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12606 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) *0.012 ppm* b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Tissue	Cases Exposure Route	Range	Mean	General Information
12607 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.02 ug/g b) 0.01 ug/g c) 0.05 ug/g d) 0.01 ug/g e) 0.03 ug/g f) 0.01 ug/g Wet wt Geometric	a) 3 composite samples from Lake Verret b) 1 from lake Fausse Point c) 1 from Little Pigeon Bayou d) 3 from Grand Lake e) 1 from Henderson Lake f) 3 from Raccouri Old River Collected 6/81, 1.3-6.5% lipids, wt 57-317 g. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; *WATER POLLUTION; BODY; METALS;* DDT; LOUISIANA; COMPARATIVE *EVALUATIONS; ALDRIN; DIELDRIN;* ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, *endo*,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Catfish, channel

ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12608 Body, whole	86	31-240 ug/kg Wet wt	101 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES

Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122

Tissue	Cases Exposure Route	Range	Mean	General Information
12609 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Cattle

BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12610 Adipose		0.002-0.344 ppm Fat basis	0.101 ppm Fat basis	Samples purchased from Baghdad meat markets in 1983. Sum of dieldrin and aldrin. Iraq GC

ADIPOSE TISSUE; CATTLE; SHEEP; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; IRAQ; HEPTACHLOR; DIELDRIN; DDT; LINDANE; BIOACCUMULATION

Al-Omar, M.; Al-Bassomy, M.; Al-Ogaily, N.; Al-Din Shebl, D. 1985 Bulletin of Environmental Contamination and Toxicology 34:509-512

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Chicken

GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12611 *Adipose*	a) 95 b) 81 c) 49 d) 30 e) 102 f) 180	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 28 ug/kg b) 7.7 ug/kg c) 6.3 ug/kg d) 20 ug/kg e) 1.5 ug/kg f) 0.74 ug/kg	a) 1969-70, 19 composite samples b) 1971-72, 21 composite samples c) 1973-74, 17 composite samples d) 1975-76, 9 composite samples e) 1979-80, 21 composite samples f) 1981-82, 50 composite samples Abdominal fat. Canada, Ontario GC; GC-EC
12612 Eggs	a) 120 b) 124 c) 64 d) 10 e) 101	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 8.3 ug/kg b) 4.9 ug/kg c) 10.5 ug/kg d) 1.3 ug/kg e) <0.5	a) 1969-70, 30 composite samples b) 1971-72, 31 composite samples c) 1973-74, 22 composite samples d) 1975-76, 4 composite samples e) 1979-80, 31 composite samples Fat. Canada, Ontario GC; GC-EC
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; ADIPOSE TISSUE; EGGS; CHICKENS; CANADA; FOOD CONTAMINATION; CHLORINE ORGANIC COMPOUNDS; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; CHLORDANE; LINDANE; POLYCHLORINATED BIPHENYLS; BIRDS Frank, R.; Rasper, J.; Braun, H.E.; Ashton, G. 1985 Journal of the Association of Official Analytical Chemists 68(1):124-129				

Cormorant, olivaceous

PHALACROCORAX OLIVACEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12613 Carcass	a) 2 b) 2	a) Not given b) 0.3-0.5 ppm Wet wt	a) 0.1 ppm b) Not given Wet wt	a) 1980 b) 1981 Shot with steel shot at Atkinson Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Texas, Galveston Bay CC; GLC-EC
12614 *Eggs*	a) 13 b) 18	a) 0.1-0.5 ppm b) 0.1-0.4 ppm Wet wt	a) Not given b) Not given	a) 1980. Detected in 6/13 b) 1981. Detected in 6/18 Collected from nests early each nesting season. Texas, Galveston Bay CC; GLC-EC
BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) *mm Hg* at 20 C

Cormorant, white-breasted
PHALACROCORAX CARBO LUCIDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12615 Adipose	a) 3 b) 1	a) 0.29-0.65 mg/kg b) Not applicable	a) 0.50 mg/kg b) 1.51 mg/kg	a) From Olifants River (near Marble Hall, 200 *km* NE of Pretoria), Letaba River (Hans Mevensky Nature Reserve), Lacot Dam (Letaba District) b) Found dead, Njelele Dame Collections in 1978. Fat extracted from muscle, liver, skin or samples from dead animals. South Africa GC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS
Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 *Chemosphere* 10(11/12):1243-1251

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12616 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 *Bulletin of Environmental Contamination and Toxicology* 34:832-841

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12617 Body		Not applicable	0.02 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
12618 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.01 ug/g b) Not detected c) 0.01 ug/g d) Not detected e) Not detected f) 0.01 ug/g Wet wt Geometric	a) 3 composite samples from Lake Fausse Point b) 3 from Little Pigeon Bayou c) 2 from Henderson Lake d) 1 from Bayou Petite Prairie e) 2 from Spring Bayou f) 3 from Raccouri Old River Collected 6/81, 1.3-4.1% lipids, wt 92-251 g. Detection limits <0.01 ug/g. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

Crappie, white
POMOXIS ANNULARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12619 Body, whole	217	15-301 ug/kg Wet wt	57 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Crayfish

PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
12620 Body, whole	50	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 10 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Duck, black

ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
12621 Wing		Not detected-0.09+/-0.06 ppm S.E. Wet wt	0.03+/-0.01 ppm S.E. Wet wt	Range of means, various states in Atlantic flyway, 1979-80. 24 pools, usually of 25 wings each. Mean from literature, 1976 was 0.04+/-0.01 ppm. Detection limit 0.01 ppm. Atlantic flyway, eastern states from Vermont to Florida GC-EC

ENVIRONMENTAL EXPOSURE; BIRDS; WINGS; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; UNITED STATES; WATER POLLUTION; DDE; DDT; TDE; DIELDRIN; POLYCHLORINATED BIPHENYLS

Cain, B.W. 1981 Pesticides Monitoring Journal 15(3):128-134

Tissue	Cases Exposure Route	Range	Mean	General Information
12622 Wing				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS

Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12623 Eggs	3	Not applicable	0.75 ug/g Wet wt	1978 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 1 positive. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Tissue	Cases Exposure Route	Range	Mean	General Information
12624 *Wing*		a) Not detected-0.28+/-0.27 *ppm* b) Not detected-0.31+/-0.29 ppm c) Not detected-0.02+/-0.001 ppm d) Not detected-0.04+/-0.02 ppm S.E. Wet wt	a) 0.05+/-0.03 ppm b) 0.05+/-0.03 ppm c) 0.02+/-0.00 ppm d) 0.02+/-0.00 ppm S.E. *Wet wt*	a) Atlantic flyway, 18 pools (total 29) b) Mississippi flyway, 41 pools (total 64) c) Central flyway, 12 pools (total 54) d) Pacific flyway, 17 pools (total 44) Ranges of means, except c). Numbers of pools (out of totals) with detectable *levels. From various states in these flyways,* 1979-80. Usually 25 wings/pool. Means from literature were 0.06+/-0.03, 0.05+/-0.01, 0.03+/-0.01, 0.02+/-0.00 ppm. *Detection limit* 0.01 ppm. GC-EC

ENVIRONMENTAL EXPOSURE; BIRDS; WINGS; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; UNITED STATES; WATER POLLUTION; DDE; DDT; TDE; DIELDRIN; POLYCHLORINATED BIPHENYLS
Cain, B.W. 1981 Pesticides Monitoring Journal 15(3):128-134

Tissue	Cases Exposure Route	Range	Mean	General Information
12625 Wing				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS
Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Eagle, bald
HALIAEETUS LEUCOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12626 Brain				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS
Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12627 Brain	a) 2 b) 1 c) 3	a) 10.0-11.0 ppm b) Not applicable c) Not detected Wet wt	a) 10.5 ppm b) 5.6 ppm c) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 6/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortaltiy in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC
12628 Carcass	a) 2 b) 1 c) 1 d) 3	a) 5.0-8.3 ppm b) Not detected c) Not applicable d) Not detected Wet wt	a) 6.65 ppm b) Not detected c) 3.0 ppm d) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORI-
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Egret, great

CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12629 Brain	a) 4 b) 1	a) Not detected b) Not applicable	a) Not detected b) 3.7 ppm Wet wt	a) Minnesota, adults, and chicks, 6/75-6/76 b) Californai, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12630 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not applicable d) Not detected e) Not applicable	a) Not detected b) Not detected c) 0.45 ppm d) Not detected e) 3.30 ppm Wet wt	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Egret, snowy

EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
12631 Brain	1	Not detected	Not detected	Dead chick, 6/77. Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
12632 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12633 Body		1200 ug/kg-<300 ug/kg Wet wt	Not given	Decline from 1968 to 1979. Measured in edible tissue of bottom-feeding fish caught in Coralville Reservoir, an impoundment of Iowa River. Residues declined at a rate of approx 15%/yr. Total dieldrin in water declined from 0.025 ug/L in 1968 to <0.005 ug/L in 1979. Values estimated from graph. Iowa

WATER POLLUTION; INSECTICIDES; PESTICIDE RESIDUES; PESTICIDES; BODY; FISHES; ENVIRONMENTAL EXPOSURE; DIELDRIN; IOWA

Schnoor, J.L. 1981 Science 211(4484):840-842

Tissue	Cases Exposure Route	Range	Mean	General Information
12634 Body		0.00-0.72 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=18.0 ug/g. Part of National Pesticides Monitoring Program. United States GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING

Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260

Tissue	Cases Exposure Route	Range	Mean	General Information
12635 Muscle	a) 140 b) 14 c) 15 d) 98 e) 24	a) Not detected-0.030 ug/g b) Not detected-0.020 ug/g c) Not detected-0.050 ug/g d) Not detected-0.040 ug/g e) Not detected-0.020 ug/g	a) 0.010 ug/g b) 0.006 ug/g c) 0.013 ug/g d) 0.006 ug/g e) 0.00 ug/g	a) Collected 1976 b) 1977 c) 1978 d) 1979 e) 1980 Collected in Maryland waters. Part of study identifying and quantifying organochlorine residues in samples from various regions of the bay. Detection limit 0.001 ug/g. Values below established action level. Maryland, Chesapeake Bay and tributaries GC-EC

ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING

Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7 78X10(E-7) mm Hg at 20 C

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
12636 Liver	1	Not applicable	35 mg/kg Lipid basis	Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
12637 Liver	1	Not applicable	18 mg/kg Lipid basis	Collected from local fish market in Porto Santo, East of Madeira. Surface water habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12638 Liver	1	Not applicable	13 mg/kg Lipid basis	Collected off Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Francolin
FRANCOLINIS NATALENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12639 Adipose	3	0.44-10.70 mg/kg	4.36 mg/kg	Shot in field area near Settler, 1978. Fat extracted from muscle, liver, skin. South Africa GC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS
Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251

Frog
RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12640 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
12641 Muscle	25	a) Not given b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.010 ppm b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Mean a) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Gar, spotted
LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12642 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) Not detected b) 0.01 ug/g c) 0.04 ug/g d) 0.02 ug/g e) 0.02 ug/g f) Not detected g) Not detected h) 0.62 ug/g Wet wt Geometric	a) 1 composite sample from Lake Verret b) 1 from Lake Fausse Point c) 3 from Little Pigeon Bayou d) 1 from Grand Lake e) 2 from Henderson Lake f) 1 from Bayou Petite Prairie g) 1 from Spring Bayou h) 1 from Raccouri Old River Collected 6/81, 1.6-12.9% lipids, wt 303-860 g. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Goose, Egyptian
ALOPOCHEN AEGYPTIACUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12643 Adipose	3	0.48-2.70 mg/kg	1.46 mg/kg	Found dead in Carolina district, 1978, fat from samples. South Africa GC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS
Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251

Goshawk
ACCIPITER GENTILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12644 Liver	7	Not applicable	4.50 ppm Wet wt	Collected 1972-73, 14.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Guinea fowl
NUMIDA MELEAGRIS MITRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
12645 Adipose	a) 3 b) 1	a) 1.61-29.32 m/gkg b) Not applicable	a) 13.11 mg/kg b) 0.24 mg/kg	a) Shot in field area near Settlers b) Found dead, Bethel District Collections in 1978. Fat extracted from muscle, liver, skin or samples from dead animals. South Africa GC
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251				

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12646 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.08 ppm b) 0.56 ppm c) 0.29 ppm d) 0.26 ppm e) 0.17 ppm f) 0.19 ppm Wet wt	a) Kent Island, Bay of Fundy b) Agawa Rock, Lake Superior c) Chantry Island, Lake Huron d) Presqu'ile, Lake Ontario e) Channel-Shelter Island, Saginaw Bay f) Fighting Island, Detroit River Pooled homogenates from 15-25 eggs. Collected 1981. Great Lakes, Atlantic Ocean GC
ENVIRONMENTAL EXPOSURE; AQUATIC; EGGS; GREAT LAKES; WATER POLLUTION; PESTICIDES; BIRDS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; DIELDRIN; OXYCHLORDANE Ellenton, J.A.; Brownlee, L.J.; Hollebone, B.R. 1985 Environmental Toxicology and Chemistry 4:615-622				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
12647 Carcass	a) 7 b) 1	a) 0.1-0.4 ppm b) Not given Wet wt	a) 0.12 ppm b) 0.2 ppm Wet wt	a) 1980 b) 1981 Shot with steel shot at Atkinson Island, Little Pelican Island, and South Deer Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Mean for a) is geometric. Texas, Galveston Bay CC; GLC-EC
12648 Eggs	a) 20 b) 20	a) Not given b) 0.1-2.3 ppm Wet wt	a) 1.5 ppm b) Not given Wet wt	a) 1980. Detected in 1/20 b) 1981. Detected in 3/20 Collected from nests early each nesting season. Texas, Galveston Bay CC; GLC-EC
BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376				

Gull, ring-billed
LARUS DELAWARENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12649 Brain	1	Not applicable	0.36 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1989. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL, TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

Harrier, northern
CIRCUS CYANEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12650 Brain	1	Not applicable	7.42 ppm Wet wt	Collected 1975, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Harrier, northern
CIRCUS CYANEUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12651 Heart	1	Not applicable	1.74 ppm Wet wt	Collected 1975, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12652 Liver	1	Not applicable	2.41 ppm Wet wt	Collected 1975, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Hawk, Cooper's
ACCIPITER COOPERII

Tissue	Cases Exposure Route	Range	Mean	General Information
12653 Brain	1	Not applicable	0.01 ppm Wet wt	Collected 1973, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12654 Brain	1	Not applicable	2.40 ug/g Wet wt	Collected 1/1/75. Florida, Duval County GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, Cooper's
ACCIPITER COOPERII

Tissue	Cases Exposure Route	Range	Mean	General Information
12655 Heart	1	Not applicable	0.003 ppm Wet wt	Collected 1973, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12656 Liver	1	Not applicable	0.01 ppm Wet wt	Collected 1973, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12657 Liver	1	Not applicable	5.60 ug/g Wet wt	Collected 1/1/75. Florida, Duval County GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12658 Muscle	1	Not applicable	0.04 ppm Wet wt	Collected 1973, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, Cooper's
ACCIPITER COOPERII

Tissue	Cases Exposure Route	Range	Mean	General Information
12659 Muscle	1	Not applicable	1.40 ug/g Wet wt	Collected 1/1/75. Florida, Duval County GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Hawk, red-shouldered
BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12660 Adipose	1	Not applicable	195.30 ppm Wet wt	Collected 1967-75, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12661 Brain	2	0.05-0.87 ppm Wet wt	0.46 ppm Wet wt	Collected 1967-75, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12662 Brain	6	Not detected-11.00 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1974-81. Not detected in 1/6, detection limit 0.01 ug/g. Wt 360-500 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, red-shouldered
BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12663 Heart	2	0.05-0.27 ppm Wet wt	0.16 ppm Wet wt	Collected 1967-75, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12664 Liver	2	Not applicable	0.21 ppm Wet wt	Collected 1967-75, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12665 Liver	5	0.01-11.00 ug/g Wet wt	3.25 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1974-81. Mean calculated by extractor. Wt 390-500 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12666 Muscle	2	0.41-1.27 ppm Wet wt	0.84 ppm Wet wt	Collected 1967-75, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, red-shouldered

BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12667 Muscle	6	0.12-14.00 ug/g Wet wt	3.85 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1974-81. Mean calculated by extractor. Wt 360-500 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Hawk, red-tailed

BUTEO JAMAICENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12668 Brain	5	0.002-7.94 ppm Wet wt	3.23 ppm Wet wt	Collected 1971-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS, BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12669 Brain	2	0.01-0.03 ug/g Wet wt	0.02 ug/g Wet wt	Collected 12/74-1/75, wt 1130-1220 g. Mean calculated by extractor. Florida, Alachua County GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1).71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12670 Heart	6	0.004-11.74 ppm Wet wt	3.36 ppm Wet wt	Collected 1971-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, red-tailed
BUTEO JAMAICENSIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12671 Liver	6	0.006-7.42 ppm Wet wt	2.58 ppm Wet wt	Collected 1971-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Tissue	Cases Exposure Route	Range	Mean	General Information
12672 Liver	2	0.02-0.16 ug/g Wet wt	0.09 ug/g Wet wt	Collected 12/74-1/75, wt 1130-1220 g. Mean calculated by extractor. Florida, Alachua County GC-EC
FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82				

Tissue	Cases Exposure Route	Range	Mean	General Information
12673 Muscle	6	0.04-4.27 ppm Wet wt	1.54 ppm Wet wt	Collected 1971-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Tissue	Cases Exposure Route	Range	Mean	General Information
12674 Muscle	2	Not applicable	0.02 ug/g Wet wt	Collected 12/74-1/75, wt 1130-1220 g. Florida, Alachua County GC-EC
FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, rough-legged

BUTEO LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12675 Adipose	1	Not applicable	3.21 ppm Wet wt	Collected 1977-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12676 Brain	2	0.04-0.74 ppm Wet wt	0.39 ppm Wet wt	Collected 1977-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12677 Heart	1	Not applicable	0.07 ppm Wet wt	Collected 1977-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12678 Liver	2	0.017-0.02 ppm Wet wt	0.02 ppm Wet wt	Collected 1977-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12679 Muscle	2	0.001-0.004 ppm Wet wt	0.003 ppm Wet wt	Collected 1977-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Hawk, sharp-shinned

ACCIPITER STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12680 Adipose	2	0.45-1.50 ug/g Wet wt	0.98 ug/g Wet wt	Adults, collected 12/71-10/74, wt 110 g. Mean calculated by extractor. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, sharp-shinned
ACCIPITER STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12681 Brain	1	Not applicable	4.01 ppm Wet wt	Collected 1979, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Tissue	Cases Exposure Route	Range	Mean	General Information
12682 Brain	1	Not applicable	0.04 ug/g Wet wt	Adult, wt 110 g, collected 10/24/74. Florida, Pinellas County GC-EC
FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82				

Tissue	Cases Exposure Route	Range	Mean	General Information
12683 Heart	1	Not applicable	2.88 ppm Wet wt	Collected 1979, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12684 *Liver*	1	Not applicable	3.71 ppm Wet wt	Collected 1979, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Hawk, *sharp-shinned*

ACCIPITER STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12685 Liver	2	0.01-0.16 ug/g Wet wt	0.09 ug/g Wet wt	Adults, collected 12/71-10/74, wt 110 g. Mean calculated by extractor. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12686 Muscle	1	Not applicable	1.82 ppm Wet wt	Collected 1979, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12687 Muscle	2	0.02-0.08 ug/g Wet wt	0.05 ug/g Wet wt	Adults, collected 12/71-10/74, wt 110 g. Mean calculated by extractor. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Heron, black-crowned night

NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
12688 Brain	a) 1 b) 3 c) 1	a) Not applicable b) Not detected-0.15 ppm c) Not applicable Wet wt	a) 0.21 ppm b) Not applicable c) 0.10 ppm Wet wt	a) Wisconsin, adult, 8/78 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12689 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable f) Not detected-0.14 ppm g) Not detected Wet wt	a) Not detected b) Not detected c) Not detected d) 0.50 ppm e) 0.83 ppm f) Not applicable g) Not detected Wet wt	a) Massachusetts, adults, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; *ILLINOIS*; *LOUISIANA*; *MARYLAND*; MASSACHUSETTS; MICHIGAN; *MINNESOTA*; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; *NONACHLOR*; PESTICIDES; POLYCHLORI-*NATED BIPHENYLS*; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,exo- (8 Cl) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 Cl)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Heron, great blue

ARDEA HERODIAS

Tissue	Cases / Exposure Route	Range	Mean	General Information
12690 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) 0.25-3.90 ppm b) Not detected-8.90 ppm c) Not detected-6.60 ppm d) Not applicable e) Not applicable f) Not detected-0.11 ppm g) Not detected-14.0 ppm h) Not detected-6.0 ppm *Wet wt*	a) 1.53 ppm b) Not applicable c) Not applicable d) 0.83 ppm e) 12.0 ppm f) Not applicable g) Not applicable h) Not applicable *Wet wt*	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 12/76-5/79 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-5/79 Part of large study of organochlorines and mortality in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC
12691 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected-2.3 ppm c) Not detected-3.8 ppm d) Not detected-6.5 ppm e) Not applicable f) 0.14-3.8 ppm g) Not detected-5.6 ppm h) Not applicable *Wet wt*	a) Not detected b) Not applicable c) Not applicable d) Not applicable e) 7.9 ppm f) 0.82 ppm g) Not applicable h) 1.2 ppm *Wet wt*	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adults, 5/78 Part of large study of organochlorines and mortality in herons. Mean in f) calculated by extractor. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Oblendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12692 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected-0.25 ppm Wet wt	a) Not detected b) Not detected c) Not applicable	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12693 Carcass	a) 6 b) 1	a) Not detected b) Not applicable	a) Not detected b) 0.40 ppm Wet wt	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12694 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected Wet wt	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,exo- (8 Cl) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 Cl)

60-57-1
$C_{12}H_8Cl_6O$
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases / Exposure Route	Range	Mean	General Information
12695 Body, whole	10	a) Not given b) Not applicable c) Not applicable d) Not given e) Not given f) Not given	a) 0.020 ppm b) Not detected c) Not detected d) 0.011 ppm e) 0.029 ppm f) 0.056 ppm	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Means a), d), e) and f) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; *FROGS; SNAKES*; CRAYFISH; RACCOONS; AQUATIC; *TERRESTRIAL*; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; *DIELDRIN*; *POLYCHLORINATED BIPHENYLS*; NONACHLOR; *PESTICIDE RESIDUES*; BIOACCUMULATION

Hacsloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Tissue	Cases / Exposure Route	Range	Mean	General Information
12696 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; *ENVIRONMENTAL EXPOSURE*; ALABAMA; *CALIFORNIA*; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; *NEW MEXICO*; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; *INSECTICIDES*; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Kestrel, American
FALCO SPARVERIUS

Tissue	Cases / Exposure Route	Range	Mean	General Information
12697 Brain	17	0.32-6.80 ug/g Wet wt	1.77 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1971-77. 3 of 17 not analyzed. Mean calculated by extractor for 14/17. Wt 80-108 g. Florida GC-EC

FLORIDA; *TERRESTRIAL*; BIRDS; AQUATIC; *ENVIRONMENTAL EXPOSURE*; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; *POLYCHLORINATED BIPHENYLS*; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, *endo*,*exo*- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Kestrel, American
FALCO SPARVERIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12698 Heart	1	Not applicable	0.04 ppm Wet wt	Collected 1977, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12699 Liver	1	Not applicable	0.04 ppm Wet wt	Collected 1977, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12700 Liver	15	0.40-15.00 ug/g Wet wt	3.70 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1971-75. Mean calculated by extractor. Wt 80-103 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12701 Muscle	1	Not applicable	0.03 ppm Wet wt	Collected 1977, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Kestrel, American

FALCO SPARVERIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12702 Muscle	15	0.30-9.50 ug/g Wet wt	3.56 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1971-75. Mean calculated by extractor. Wt 80-103 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPCUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Killdeer

CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12703 Carcass	a) 19 b) 66	a) 0.01-1.09 ppm b) 0.09-0.11 ppm Wet wt	a) 0.13+/-0.06 ppm b) 0.03+/-0.02 ppm S.E. Wet wt Arithmetic	a) Detected in 12/19 individuals b) Detected in 2/7 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah; Oregon; Montana; Colorado GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Kurper

SAROTHERODEN sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12704 Adipose	3 b) 1	a) 0.41-1.44 mg/kg b) Not aplicable	a) 0.78 mg/kg b) 1.07 mg/kg	a) From Olifants River (near Marble Hall, 200 km NE of Pretoria), Olifants River Dam (near Phalaborwa, 450 km Ne of Pretoria), Letalea River (hans Merensky Nature Reserve) b) Found dead, Njelele Dam Collections in 1978. Fat extracted from muscle, liver, skin or samples from dead animals. South Africa GC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS

Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Magpie, black-billed
PICA PICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12705 Brain	2	0.13-0.61 ug/g Wet wt	0.37 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1978-1980. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
12706 Body, whole	480	Not given	9 ng/g Wet wt	Collected Jun-Aug 1980, 1981, or 1982 at Union Slough National Wildlife Refuge, IA. Length 25-68 mm, avg wt 0.5 g. Data also given for mixed species. Iowa GC

ENVIRONMENTAL EXPOSURE; FISHES; PESTICIDE RESIDUES; BODY; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; COLORADO; NORTH DAKOTA; AQUATIC; KANSAS; IOWA; COMPARATIVE EVALUATIONS; DIELDRIN; DDT; DDE; DDD; HEXACHLOROCYCLOHEXANE
Martin, D.B.; Hartman, W.A. 1985 Journal of the Association of Official Analytical Chemists 68(4):712-717

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12707 Adipose	2	0.07-0.08 ug/g Wet wt	0.08 ug/g Wet wt	Adults, collected 1974, 1160-1280 g. Mean calculated by extractor. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Osprey

PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12708 Body				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS

Oblendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

Tissue	Cases Exposure Route	Range	Mean	General Information
12709 Brain	2	Not detected-0.01 ug/g Wet wt	Not given	Adults, collected 1974, 1160-1280 g. Detection limit 0.01 ug/g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12710 Eggs				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS

Oblendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

Tissue	Cases Exposure Route	Range	Mean	General Information
12711 Liver	2	Not detected-0.04 ug/g Wet wt	Not given	Adults, collected 1974, 1160-1280 g. Detection limit 0.01 ug/g. Florida GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Osprey
PANDION HALIAETUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12712 Muscle	2	0.01-0.02 ug/g Wet wt	0.02 ug/g Wet wt	Adults, collected 1974, 1160-1280 g. Mean calculated by extractor. Florida GC-EC
FLORIDA; *TERRESTRIAL*; *BIRDS*; *AQUATIC*; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82				

Otter
LUTRA LUTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
12713 Embryo		Not applicable	3.3 mg/kg Fat wt	Part of group collected from various sites between 12/82 and 3/85. Mean calculated by extractor. Great Britain GC-EC
12714 Liver	10	0.1-66.4 mg/kg Fat wt	18.2 mg/kg Fat wt	From group of 15, 2 with undetectable levels (limits not given) and 3 with trace level. Collected from various sites throughout Britain between 12/82 and 3/85. Mean calculated by extractor. Great Britain GC-EC
12715 Muscle	8	2.3-29.0 mg/kg Wet wt	11.4 mg/kg Wet wt	From group of 15, 5 with undetectable levels (limits not given). Collected from various sites throughout Britain between 12/82 and 3/85. Mean calculated by extractor. Great Britain GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; *OTTERS*; *LIVER*; *MUSCLES*; KIDNEYS; EMBRYOS; POLYCHLORINATED BIPHENYLS; LINDANE; DIELDRIN; DDE; DDD; DDT; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; UNITED KINGDOM Mason, C.F.; Ford, T.C.; Last, N.I. Bulletin of Environmental Contamination and Toxicology 36:656-661				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C
Owl, barn-, common
TYTO ALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
12716 Adipose	1	Not applicable	0.72 ug/g Wet wt	Collected 3/12/75. Adult, wt 400 g. Florida, Hillsborough County GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12717 Eggs				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS
Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

Tissue	Cases Exposure Route	Range	Mean	General Information
12718 Liver	1	Not applicable	0.18 ug/g Wet wt	Collected 3/12/75. Adult, wt 400 g. Florida, Hillsborough County GC-EC
12719 Muscle	1	Not applicable	0.26 ug/g Wet wt	Collected 3/12/75. Adult, wt 400 g. Florida, Hillsborough County GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
12720 Adipose	6	1.41-132.12 ppm Wet wt	28.81 ppm Wet wt	Collected 1966-79, 83.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12721 Brain	11	0.02-0.99 ppm Wet wt	0.16 ppm Wet wt	Collected 1966-79, 72.7% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12722 Brain	3	Not detected-0.23 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Not detected in 1/3, detection limit 0.01 ug/g. Wt 450-860 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12723 Heart	11	0.02-4.22 ppm Wet wt	0.88 ppm Wet wt	Collected 1966-79, 81.8% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12724 Liver	12	0.02-3.74 ppm Wet wt	0.82 ppm Wet wt	Collected 1966-79, 75.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
12725 Liver	5	Not detected-3.80 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Not detected in 3/5, detection limit 0.01 ug/g. Wt 450-860 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12726 Muscle	13	0.005-1.42 ppm Wet wt	0.25 ppm Wet wt	Collected 1966-79, 76.9% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12727 Muscle	5	Not detected-0.87 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Not detected in 3/5, detection limit 0.01 ug/g. Wt 450-860 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Owl, great horned
BUBO VIRGINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12728 Adipose	4	0.70-32.00 ppm Wet wt	14.22 ppm Wet wt	Collected 1974-81, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, great horned
BUBO VIRGINIANUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12729 Brain	14	0.03-5.42 ppm Wet wt	1.12 ppm Wet wt	Collected 1974-81, 78.6% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12730 Brain	2	0.36-1.10 ug/g Wet wt	0.73 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1973-74. Mean calculated by extractor. Wt 890-900 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12731 Heart	15	0.03-0.52 ppm Wet wt	0.24 ppm Wet wt	Collected 1974-81, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12732 Liver	16	0.004-5.57 ppm Wet wt	0.57 ppm Wet wt	Collected 1974-81, 93.8% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, great horned

BUBO VIRGINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12733 Liver	3	Not detected-5.40 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-74. Not detected in 1/3, detection limit 0.01 ug/g. Wt 700-900 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12734 Muscle	15	0.01-7.27 ppm Wet wt	1.10 ppm Wet wt	Collected 1974-81, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES

Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12735 Muscle	2	0.13-0.6 ug/g Wet wt	0.37 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1973-74. Mean calculated by extractor. Wt 890-900 g. Florida GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES

Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Owl, long-eared

ASIO OTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12736 Brain	4	0.0002-0.96 ppm Wet wt	0.33 ppm Wet wt	Collected 1977-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, long-eared
ASIO OTUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12737 Heart	3	Not applicable	0.70 ppm Wet wt	Collected 1977-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12738 Liver	3	0.004-0.21 ppm Wet wt	0.07 ppm Wet wt	Collected 1977-79, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12739 Muscle	3	Not applicable	0.19 ppm Wet wt	Collected 1977-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Owl, saw-whet
AEGOLIUS ACADICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12740 Liver	1	Not applicable	0.77 ppm Wet wt	Collected 1976, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Owl, screech-, Eastern
OTUS ASIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12741 Adipose	4	0.05-0.77 ppm Wet wt	0.41 ppm Wet wt	Collected 1967-79, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, screech-, Eastern
OTUS ASIO

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12742 Brain	7	0.10-3.00 ppm Wet wt	1.19 ppm Wet wt	Collected 1967-79, 57.1% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Tissue	Cases Exposure Route	Range	Mean	General Information
12743 Brain	1	Not applicable	1.00 ug/g Wet wt	Dead or moribund insectivorous adult raptor collected 7/10/74. Wt 100 g. Florida, Alachua County GC-EC
FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82				

Tissue	Cases Exposure Route	Range	Mean	General Information
12744 Heart	9	0.04-2.41 ppm Wet wt	0.69 ppm Wet wt	Collected 1967-79, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12745 Liver	10	0.01-0.71 ppm Wet wt	0.40 ppm Wet wt	Collected 1967-79, 70.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, screech-, Eastern
OTUS ASIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12746 Liver	4	0.02-2.40 ug/g Wet wt	0.63 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1974-75. Mean calculated by extractor. Wt 80-110 g. Florida, Hillsborough and Alachua Counties GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Tissue	Cases Exposure Route	Range	Mean	General Information
12747 Muscle	8	0.02-0.94 ppm Wet wt	0.53 ppm Wet wt	Collected 1967-79, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES
Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32

Tissue	Cases Exposure Route	Range	Mean	General Information
12748 Muscle	4	0.01-1.20 ug/g Wet wt	0.32 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1974-75. Mean calculated by extractor. Wt 80-110 g. Florida, Hillsborough and Alachua Counties GC-EC

FLORIDA; TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES
Sundlof, S.F.; Forrester, D.J.; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82

Owl, short-eared
ASIO FLAMMEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12749 Brain	1	Not applicable	0.10 ppm Wet wt	Collected 1975, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Owl, short-eared
ASIO FLAMMEUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12750 Heart	1	Not applicable	0.09 ppm Wet wt	Collected 1975, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12751 Liver	1	Not applicable	0.06 ppm Wet wt	Collected 1975, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
12752 Muscle	1	Not applicable	0.17 ppm Wet wt	Collected 1975, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Pelican, American white
PELECANUS ERYTHRORHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12753 Brain	a) 1 b) 1 c) 1 d) 1	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 0.92 ppm b) 0.97 ppm c) 0.97 ppm d) 0.86 ppm Wet wt	a) Found dead, 1976 b) 1978 c) 1980 d) 1980 California, Lower Klamath National Wildlife Refuge GLC
12754 Eggs	a) 10 b) 35	a) Not detected-0.30 ppm b) Not detected-0.38 ppm Wet wt	a) 0.16 ppm b) 0.08 ppm Wet wt Geometric	a) Collected 1969, detected in 9/10 b) Collected 1981, detected in 16/35 Includes DDD residues because of possible conversions during development and after death. Significant difference between 1969 and 1981 ($p<0.01$) levels. Detection limit 0.1 ppm. California, Klamath Basin National Wildlife Refuges GLC
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; EGGS; BODY; BRAIN; DDT; DDE; CALIFORNIA; DIELDRIN; WATERFOWL; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; BIOLOGICAL MONITORING; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; PESTICIDES Boellstorff, D.E.; Ohlendorf, H.M.; Anderson, D.W.; O'Neill, E.J.; Keith, J.O.; Prouty, R.M. 1985 Archives of Environmental Contamination and Toxicology 14:485-493				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Pelican, brown
PELECANUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12755 Eggs	a) 23 b) 61 c) 33 d) 40	a) 0.17-0.67 ug/g b) Not detected-2.89 ug/g c) 0.16-0.94 ug/g d) 0.10-1.12 ug/g Wet wt	a) Not given b) Not given c) Not given d) Not given	a) Freshly laid, successful nest, mean 1971-72 was 0.29 ug/g, 1973, 0.36 ug/g, 1974, 0.35 ug/g, 1975, 0.44 ug/g b) Freshly laid, unsuccessful, mean 1971-72 was 0.43 ug/g, 1973, 0.52 ug/g, 1974, 0.73 ug/g, 1975, 0.38 ug/g c) Embryonated, successful, mean 1971-72 was 0.31 ug/g, 1973, 0.43 ug/g, 1974, 0.38 ug/g, 1975, 0.43 ug/g d) Embryonated, unsuccessful, mean 1971-72 was 0.58 ug/g, 1973, 0.37 ug/g, 1974, 0.52 ug/g, 1975, 0.31 ug/g Successful nest if >/=1 downy young survived long enough to leave nest. Detection limit 0.1 ug/g. South Carolina GC-EC
BIRDS; AQUATIC; CHLORINE ORGANIC COMPOUNDS; EGGS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; SOUTH CAROLINA; DIELDRIN; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; BIOLOGICAL MONITORING; ANIMAL POPULATIONS; PESTICIDES Blus, L.J. 1982 Environmental Pollution (Series A) 28:15-33				

Tissue	Cases Exposure Route	Range	Mean	General Information
12756 Eggs				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS, BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS Ohlendorf, H.M. 1981 *Trans 46th North American Wildlife and Natural Resource Conf*				

Perch, white
MORONE AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
12757 Eggs	1	Not applicable	0.02 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Maryland, Chesapeake Bay and tributaries GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) *mm Hg at 20 C*

Perch, white

MORONE AMERICANA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12758 Muscle	1	Not applicable	0.02 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Maryland, Chesapeake Bay and tributaries GC-EC

ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING

Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742

Perch, yellow

PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
12759 Body, whole	371	a) Not given b) Not given	a) 0.26 ug/g b) 0.007 ug/g	a) Wauseon Reservoir, 120 cases b) Findlay Reservoir, 251 cases 1978-1980. Ohio Bilateral asymmetry

BODY; OVARIES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; OHIO; WISCONSIN; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; POPULATION EXPOSURE; BIOINDICATORS

Carline, R.F.; Lawal, M.V. 1985 Environmental Toxicology and Chemistry 4:543-547

Tissue	Cases Exposure Route	Range	Mean	General Information
12760 Eggs	2	0.04-0.05 ug/g	0.045 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC

(next page)

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Perch, yellow
PERCA FLAVESCENS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12761 Muscle	2	0.01-0.02 ug/g	0.015 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC

ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING
Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742

Tissue	Cases Exposure Route	Range	Mean	General Information
12762 Ovary		a) Not given b) Not given c) Not given d) Not given	a) 0.10 ug/g b) 0.25 ug/g c) 0.03 ug/g d) 0.04 ug/g	a) Lake Erie b) Wauseon Reservoir c) New London Reservoir d) Findlay Reservoir 1978. Ohio Bilateral asymmetry

BODY; OVARIES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; OHIO; WISCONSIN; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; POPULATION EXPOSURE; BIOINDICATORS
Carline, R.F.; Lawal, M.V. 1985 Environmental Toxicology and Chemistry 4:543-547

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12763 Body	5	Not given	Trace	Collected in Washington county, an area identified as high in pesticide use. Kansas

BODY; PHEASANTS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; KANSAS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; DIELDRIN; ANIMAL FEEDS; BIOACCUMULATION; LAND POLLUTION; PESTICIDE RESIDUES; BIOLOGICAL MONITORING
Layher, W.G.; Wood, R.D.; Lambley, D.; Bell, K.O.; Irwin, J.C.; Hammerschmidt, R.F. 1985 Bulletin of Environmental Contamination and Toxicology 34:317-322

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12764 Eggs	1	Not applicable	3.06 ug/g Wet wt	1979 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12765 Body		a) Not applicable b) Not applicable	a) 0.01 mg/kg b) <0.002 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
12766 Liver	1	Not applicable	1 mg/kg Lipid basis	Collected at Lake Sete Cidades in Sao Miguel, Azores. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Raccoon
PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12767 Muscle	10	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) *Plaquemine-Brule Bayou, 1978* d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12768 Adipose	a) 7 b) 9	a) 0.21-1.30 ug/g b) 0 12-0.52 ug/g Lipid wt	a) 0.51 ug/g b) 0.29 ug/g Lipid wt	a) 1-22 yr old males b) 6-31 yr old females Blubber lipid. Mean for both sexes was 0.38+/-0.28 ug/g Collected 11/72, during breeding season. Separate means calculated by extractor. England, Farne Islands GLC/microwave plasma detection
12769 Liver	a) 2 b) 2 c) 2 d) 2 e 2	a) 0.27-0.37 ug/g b) 0.26-0 51 ug/g c) 0 20-0 39 ug/g d) 0.68-0.57 ug/g e) 0.05-0.10 ug/g Lipid wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable	a) Fetus and 7 yr old mother with blubber level 0.27 ug/g b) Fetus and 12 yr old mother, blubber levels 0.21 ug/g c) 13 yr old mother blubber level 0.41 ug/g, and fetus d) Fetus and 16 yr old mother, blubber level 0.40 ug/g e) Fetus and 37 yr old mother, blubber level 0.17 ug/g Collected during 11/72, during breeding season. England, Farne Islands GLC/microwave plasma detection
ENVIRONMENTAL EXPOSURE; SEALS; AQUATIC; ADIPOSE TISSUE; LIVER; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; FETUS; WATER POLLUTION; PESTICIDES; PESTICIDE RESIDUES; UNITED KINGDOM Donkin, P.; Mann, S.V.; Hamilton, E.I. 1981 Science of the Total Environment 19:121-142				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Shad

DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12770 Body, whole	25	a) Not given b) Not applicable c) Not given d) Not applicable e) Not given f) Not applicable	a) 0.090 ppm b) Not detected c) 0.092 ppm d) Not detected e) 0.076 ppm f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Shad, gizzard

DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12771 Body, whole	4	Not given	6 ng/g Wet wt	Collected Jun-Aug 1980, 1981, or 1982 at Flint Hills National Wildlife Refuge, KS. Length 121-151 mm, avg wt 29 g. Data also given for mixed species. Kansas GC

ENVIRONMENTAL EXPOSURE; FISHES; PESTICIDE RESIDUES; BODY; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; COLORADO; NORTH DAKOTA; AQUATIC; KANSAS; IOWA; COMPARATIVE EVALUATIONS; DIELDRIN; DDT; DDE; DDD; HEXACHLOROCYCLOHEXANE

Martin, D.B.; Hartman, W.A. 1985 Journal of the Association of Official Analytical Chemists 68(4):712-717

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12772 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given	a) Not detected b) 0.02 ug/g c) Not detected d) 0.02 ug/g e) Not detected f) 0.01 ug/g g) 0.01 ug/g h) 0.03 ug/g Wet wt Geometric	a) 3 composite samples from Lake Verret b) 3 from Lake Fausse Point c) 1 from Little Pigeon Bayou d) 3 from Grand Lake e) 3 from Henderson Lake f) 3 from Bayou Petite Prairie g) 3 from Spring Bayou h) 3 from Raccouri Old River Collected 6/81, 1.4-5.0% lipids, wt 60-227 g. Detection limits <0.01 ug/g. *Louisiana*, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Tissue	Cases Exposure Route	Range	Mean	General Information
12773 Body, whole	377	53-191 ug/kg Wet wt	119 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES
Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12774 Adipose		0.024-0.151 ppm Fat basis	0.067 ppm Fat basis	Samples purchased from Baghdad meat markets in 1983. Sum of dieldrin and aldrin. Iraq GC

ADIPOSE TISSUE; CATTLE; SHEEP; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; IRAQ; HEPTACHLOR; DIELDRIN; DDT; LINDANE; BIOACCUMULATION
Al-Omar, M.; Al-Bassomy, M.; Al-Ogaily, N.; Al-Din Shebl, D. 1985 Bulletin of Environmental Contamination and Toxicology 34:509-512

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Skimmer, black

RHYNCHOPS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
12775 Carcass	a) 3 b) 1 c) 2	a) 0.1-0.2 ppm b) Not given c) Not given Wet wt	a) Not given b) 0.3 ppm c) 0.1 ppm Wet wt	a) 1980 b) 1981 c) 1982 Shot with steel shot at Atkinson Island, Little Pelican island, and near Swan Lake. Carcasses analyzed did not include skin, bills, feet, gastrintestinal tracts, livers, or kidneys. Texas, Galveston Bay CC; GLC-EC
12776 Eggs	a) 20 b) 20 c) 20	a) 0.1-0.5 ppm b) Not given c) Not given Wet wt	a) Not given b) 0.1 ppm c) 0.1 ppm Wet wt	a) 1980. Detected in 2/20 b) 1981. Detected in 1/20 c) 1982. Detected in 1/20 Collected from nests early each nesting season. Texas, Galveston Bay CC; GLC-EC

BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY

King, K.A.; Krynitsky, A.J. 1986 *Archives of Environmental Contamination and Toxicology* 15:367-376

Snake, water

NATRIX sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12777 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) Not detected	a) Lake Verret b) Plaquemine-Brule Bayou c) East Franklin Site of collection in 1979. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Stilt, black-necked
HIMANTOPUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12778 Carcass		Not detected-0.05 ppm Wet wt	0.02+/-0.02 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 1 of 2 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA, COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12779 Body		Not applicable	0.005 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
12780 Body		Not applicable	0.01 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-o ctahydro-, endo,exo- (8 Cl) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-o ctahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 Cl)

60-57-1
C12-H8-Cl6-O
MW 380.93; MP 176-177 C; VP 7.78X10(E-7) mm Hg at 20 C

Sunfish
LEPOMIS sp.

Tissue	Cases / Exposure Route	Range	Mean	General Information
12781 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) Not detected b) Not detected c) Not detected d) 0.07 ug/g Wet wt Geometric	a) 1 composite sample from Lake Verret b) 1 from Grand Lake c) 1 from Bayou Petite Prairie d) 2 from Spring Bayou Collected 6/81, 0.8-3.2% lipids, wt 55-139 g. Detection limits < 0.01 ug/g. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS

Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Swallow, barn
HIRUNDO RUSTICA

Tissue	Cases / Exposure Route	Range	Mean	General Information
12782 Carcass	21	Not detected-0.05 ppm Wet wt	0.02+/-0.02 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in all 1 of 2 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Swallow, cliff
HIRUNDO PYRRHONOTA

Tissue	Cases / Exposure Route	Range	Mean	General Information
12783 Carcass	133	Not detected-0.06 ppm Wet wt	<0.01 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in all 1 of 14 composite samples that excluded beak, tarsi, GI tract, and feathers. New Mexico; Colorado; Utah; Wyoming; Idaho; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12784 Body	1	Not applicable	0.11 ppm Wet wt	Collected 6-7/1980-81. Colorado, Boulder Co. and Gilpin Co., Rocky Mountains GLC; EC
BIRDS; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS; DDE; POLYCHLORINATED BIPHENYLS; EGGS; BODY; BRAIN; DDT; HEPTACHLOR EPOXIDE; DIELDRIN; TERRESTRIAL DeWeese, L.R.; Cohen, R.R.; Stafford, C.J. 1985 Bulletin of Environmental Contamination and Toxicology 35:767-775				

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12785 Carcass	10	Not detected-0.08 ppm Wet wt	0.01+/-0.01 ppm S.E. Wet wt Arithmetic	Detected in 1/10 individuals. Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; Idaho; Oregon GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
12786 Body	a) 18 b) 30 c) 50 d) 6 e) 10 f) 7 g) 10	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.27 mg/kg b) 0.30 mg/kg c) 0.21 mg/kg d) 0.16 mg/kg e) 0.15 mg/kg f) 0.05 mg/kg g) 0.05 mg/kg Wet wt	a) 1970, Lake Michigan, off Saugatuck b) 1976 c) 1982 d) 1978, Lake Huron, off Rockport e) 1982 f) 1977, Lake Superior, off Apostle Islands g) 1982 Collection dates (fall) and sites. 1977-1982 samples were composites of 5 fish each. Data included for additonal years. Great Lakes, upper GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; POLYCHLORINATED BIPHENYLS; DDT; DIELDRIN; OXYCHLORDANE; GREAT LAKES; WATER POLLUTION; COMPARATIVE EVALUATIONS DeVault, D.S.; Willford, W.A.; Hesselberg, R.J.; Nortrupt, D.A.; Rundberg, E.G.S.; Alwan, A.K.; Bautista, C. 1986 Archives of Environmental Contamination and Toxicology 15:349-356				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)

60-57-1

C12-H8-Cl6-O

MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Trout, lake

SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
12787 Fillets	3	0.042-0.078 ppm	0.061+/-0.0145 ppm	Included skin. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION

Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9

Trout, rainbow

SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12788 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given k) Not given	a) 0 b) 320+/-62 ng/g c) 700+/-110 ng/g d) 120+/-19 ng/g e) 320+/-33 ng/g f) 360+/-38 ng/g g) 1400+/-190 ng/g h) 200+/-15 ng/g i) 710+/-25.25 ng/g j) 350+/-43 ng/g k) 1300+/-170 ng/g	a) Controls, no exposure, maintenance and growth rations, 2 & 4% body wt/d, respectively b) None in water, 0.087 ug/g fish/d in maintenance diet c) Same as b, growth diet d) 0.04 ug/L in water, none in food, maintenance e) Same as d, growth f) 0.04 ug/L in water, 0.087 ug/g fish/d in food, maintenance g) Same as f, growth h) 0.08 ug/L in water, none in food, maintenance i) Same as h, growth j) 0.08 ug/L in water, 0.087 ug/g fish/d in food, maintenance k) Same as j, growth Measurements after 16 wk exposure in subchronic tests. GC

DELIBERATE EXPOSURE; FISHES; AQUATIC; DIELDRIN; PESTICIDES; WATER POLLUTION; BODY; DIETS

Shubat, P.J.; Curtis, L.R. 1986 Environmental Toxicology and Chemistry 5:69-77

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12789 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.03+/-0.07 ppm b) Not detected c) Not detected d) Not detected e) 0.07+/-0.10 ppm Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 13%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

Vulture, black
CORAGYPS ATRATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12790 Adipose	1	Not applicable	0.71 ug/g Wet wt	Collected 3/28/72. Florida, Alachua County GC-EC
12791 Muscle	1	Not applicable	0.02 ug/g Wet wt	Collected 3/28/72. Florida, Alachua County GC-EC
FLORIDA, TERRESTRIAL; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; CHLORINE ORGANIC COMPOUNDS; MUSCLES; BRAIN; LIVER, DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; PESTICIDES Sundlof, S F.; Forrester, D J ; Thompson, N.P.; Collopy, M.W. 1986 Journal of Wildlife Diseases 22(1):71-82				

1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-, endo,exo- (8 CI) 2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)- (9 CI)
60-57-1
C12-H8-Cl6-O
MW 380.93, MP 176-177 C, VP 7.78X10(E-7) mm Hg at 20 C

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
12792 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.01 mg/kg b) 0.03 mg/kg c) <0.002 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
12793 Body, whole	40	7-44 ug/kg Wet wt	30 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122				

Yellowfish
BARBUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12794 Adipose	a) 1 b) 1	a) Not applicable b) Not applicable	a) Not detected b) 2.00 mg/kg	a) From Olifants River (near Marble Hall, 200 km NE of Pretoria) b) Found dead, Njelele Dam Collections in 1978. Fat extracted from muscle, liver, skin or samples from dead animals. South Africa GC
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251				

1H-Imidazole-1-carboxamide, N-propyl-N-(2-(2,4,6-trichlorophenoxy)ethyl)-
67747-09-5
C15-H16-Cl3-N3-O2
Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12795 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) Not detected b) 0.31 ppm Wet wt	a) Controls b) Treatment After 750 ppm dietary supplement administered for 1 wk. Intestinal and hepatic enzyme activity data presented. France GC-EC
LIVER; INTESTINES; BIRDS; QUAIL; PARTRIDGES; CHICKENS; PHEASANTS; TERRESTRIAL; DELIBERATE EXPOSURE; FRANCE; FUNGICIDES; BIOACCUMULATION; METABOLISM Riviere, J.L.; Bach, J.; Grolleau, G. 1985 Archives of Environmental Contamination and Toxicology 14:299-306				

Partridge
PERDIX PERDIX

Tissue	Cases Exposure Route	Range	Mean	General Information
12796 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) Not detected b) 0.14 ppm Wet wt	a) Controls b) Treatment After 750 ppm dietary supplement administered for 1 wk. Intestinal and hepatic enzyme activity data presented. France GC-EC
LIVER; INTESTINES; BIRDS; QUAIL; PARTRIDGES; CHICKENS; PHEASANTS; TERRESTRIAL; DELIBERATE EXPOSURE; FRANCE; FUNGICIDES; BIOACCUMULATION; METABOLISM Riviere, J.L.; Bach, J.; Grolleau, G. 1985 Archives of Environmental Contamination and Toxicology 14:299-306				

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12797 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) Not detected b) 0.17 ppm Wet wt	a) Controls b) Treatment After 750 ppm dietary supplement administered for 1 wk. Intestinal and hepatic enzyme activity data presented. France GC-EC
LIVER; INTESTINES; BIRDS; QUAIL; PARTRIDGES; CHICKENS; PHEASANTS; TERRESTRIAL; DELIBERATE EXPOSURE; FRANCE; FUNGICIDES; BIOACCUMULATION; METABOLISM Riviere, J.L.; Bach, J.; Grolleau, G. 1985 Archives of Environmental Contamination and Toxicology 14:299-306				

1H-Imidazole-1-carboxamide, N-propyl-N-(2-(2,4,6-trichlorophenoxy)ethyl)-
67747-09-5
C15-H16-Cl3-N3-O2
Quail, Japanese
COTURNIX COTURNIX JAPONICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12798 Intestine	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) <0.01 ppm b) 30 ppm c) 27 ppm d) 1.7 ppm e) 0.2 ppm f) <0.01 ppm Wet wt	a) Controls b) 6 hr c) 21 hr d) 2 d e) 5 d f) 12 d After 300 mg/kg as capsules. Intestinal and hepatic enzyme activity data presented. France GC-EC
12799 Liver	a) 20 b) 24 c) 24 d) 24 e) 6 f) 6 g) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) <0.02 ppm b) <0.02 ppm c) <0.02 ppm d) 0.035 ppm e) 57+/-22 ppm f) <0.01 ppm g) 4.3 ppm Wet wt	a) Controls, 22 d b) 50 ppm, 22 d c) 150 ppm, 22 d d) 500 ppm, 22 d e) 300 mg/kg, 6 hr f) 300 mg/kg, 5 d g) 750 ppm, 1 wk Dietary dose and length of administration. e-f) were single capsular doses in capsule form. Intestinal and hepatic enzyme activity data presented. France GC-EC

LIVER; INTESTINES; BIRDS; QUAIL; PARTRIDGES; CHICKENS; PHEASANTS; TERRESTRIAL; DELIBERATE EXPOSURE; FRANCE; FUNGICIDES; BIOACCUMULATION; METABOLISM
Riviere, J.L.; Bach, J.; Grolleau, G. 1985 Archives of Environmental Contamination and Toxicology 14:299-306

2(1H)-Pyrimidinone, tetrahydro-5,5-dimethyl-, (3-(4-(trifluoromethyl)phenyl)-1-(2-(4-(trifluoromethyl)phenyl)ethenyl)-2-propen ylidene)hydrazone
67485-29-4
C25-H24-F6-N4
Armyworm, Southern
SPODOPTERA ERIDANIA

Tissue	Cases Exposure Route	Range	Mean	General Information
12800 Body	100	Not given	13+/-2.0 ug/g	Total residues. Larvae fed cotton and lima bean leaves dipped in 20 ppm [14-C]-labeled compound (11.13 uCi/mg) in acetone/water. 80-95% exposed to treated bait for 6-24 hr were unable to fly after 24 hr, but high levels of mortality not observed prior to 48 hr. Scintillation counting

COMPARATIVE EVALUATIONS; INSECTS; INSECTICIDES; DELIBERATE EXPOSURE; TERRESTRIAL; BODY; PESTICIDES
Hollingshaus, J.G.; Little, R.J., Jr. 1984 Pesticide Biochemistry and Physiology 22:337-345

2(1H)-Pyrimidinone, tetrahydro-5,5-dimethyl-, (3-(4-(trifluoromethyl)phenyl)-1-(2-(4-(trifluoromethyl)phenyl)ethenyl)-2-propen ylidene)hydrazone
67485-29-4
C25-H24-F6-N4
Beetle, spotted cucumber
DIABROTICA UNDECIMPUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
12801 Body	100	Not given	80+/-10.1 ug/g S.E.	Adults fed dry-milled bitter cucurbits impregnated with [14-C]-labeled compound (3.19 uCi/mg) in dichloromethane. 80-95% exposed to treated bait for 6-24 hr were unable to fly after 24 hr, high levels of mortality not observed prior to 48 hr. Scintillation counting
COMPARATIVE EVALUATIONS; INSECTS; INSECTICIDES; DELIBERATE EXPOSURE; TERRESTRIAL; BODY; PESTICIDES Hollingshaus, J G.; Little, R.J., Jr. 1984 Pesticide Biochemistry and Physiology 22:337-345				

Budworm, tobacco
HELIOTHIS VIRESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
12802 Body	100	Not given	7+/-0.2 ug/g S.E.	Total residues. Larvae fed cotton and lima bean leaves dipped in 20 ppm [14-C]-labeled compound (11.13 uCi/mg) in acetone/water. 80-95% exposed to treated bait for 6-24 hr were unable to fly after 24 hr, high levels of mortality not observed prior to 48 hr. Scintillation counting
COMPARATIVE EVALUATIONS, INSECTS; INSECTICIDES; DELIBERATE EXPOSURE; TERRESTRIAL; BODY; PESTICIDES Hollingshaus, J.G.; Little, R.J., Jr 1984 Pesticide Biochemistry and Physiology 22:337-345				

Tissue	Cases Exposure Route	Range	Mean	General Information
12803 Body	a) 10 b) 10	a) 0.7+/-1.5-1.7+/-0.5% b) 1.2+/-1.6-12.2+/-10.7 Ranges of means	a) Not given b) Not given	a) 0 and 72 hr after treatment, peak at 72 hr, topical, 750 ug/g, in acetone b) 0 and 72 hr, peak at 72 hr, topical, 180 ug/g, in DMSO Measured as % of applied radioactivity recovered. Fourth-instar larvae (100-125 mg) received [14-C]-pyrimidinyl-labeled compound containing 25,000 dpm/insect. Decreased feeding and lethargy, no mortality prior to 48 hr after exposure Scintillation counting

(next page)

2(1H)-Pyrimidinone, tetrahydro-5,5-dimethyl-, (3-(4-(trifluoromethyl)phenyl)-1-(2-(4-(trifluoromethyl)phenyl)ethenyl)-2-propen yli-dene)hydrazone
67485-29-4
C25-H24-F6-N4

Budworm, tobacco
HELIOTHIS VIRESCENS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12804 Gut	10	2.1+/-1.2-3.3+/-1.1% Range of means	Not given	1 and 72 hr after ingestion of 8 ug/g, peak at 72 hr. Measured as % of applied radioactivity recovered. Fourth-instar larvae (100-125 mg) received [14-C]-pyrimidinyl-labeled compound containing 25,000 dpm/insect.
12805 Hemolymph	a) 10 b) 10 c) 10	a) 0.0-0.0% b) 0.0-2.3+/-3.2% c) 4.5+/-0.5-8.1+/-4.0% Ranges of means	a) Not given b) Not given c) Not given	Decreased feeding and lethargy, no mortality prior to 48 hr after exposure Scintillation counting a) 0 and 72 hr after treatment, peak 0.6+/-1.2% at 24 hr, topical, 750 ug/g, in acetone b) 0 and 72 hr, peak 3.5+/-2.9% at 48 hr topical, 180 ug/g, in DMSO c) 1 and 72 hr, peak 8.2+/-3.3% at 6 hr, ingestion, 8 ug/g, on cotton leaves Measured as % of applied radioactivity recovered. Fourth-instar larvae (100-125 mg) received [14-C]-pyrimidinyl-labeled compound containing 25,000 dpm/insect. Decreased feeding and lethargy, no mortality prior to 48 hr after exposure Scintillation counting

HEMOLYMPH; BODY; INSECTS; GUT; DELIBERATE EXPOSURE; TERRESTRIAL; INSECTICIDES; PESTICIDES
Hollingshaus, J.G.; Little, R.J., Jr. 1984 Pesticide Biochemistry and Physiology 22:329-336

Cockroach, German
BLATELLA GERMANICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12806 Body	100	Not given	448+/-26.7 ug/g S.E.	Adults fed yellow corn meal with [14-C]-labeled compound (2.43 uCi/mg). 80-95% exposed to treated bait for 6-24 hr were unable to fly after 24 hr, high levels of mortality not observed prior to 48 hr. Scintillation counting

COMPARATIVE EVALUATIONS; INSECTS; INSECTICIDES; DELIBERATE EXPOSURE; TERRESTRIAL; BODY; PESTICIDES
Hollingshaus, J.G.; Little, R.J., Jr. 1984 Pesticide Biochemistry and Physiology 22:337-345

2(1H)-Pyrimidinone, tetrahydro-5,5-dimethyl-, (3-(4-(trifluoromethyl)phenyl)-1-(2-(4-(trifluoromethyl)phenyl)ethenyl)-2-propen ylidene)hydrazone

67485-29-4

C25-H24-F6-N4

Housefly

MUSCA DOMESTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12807 Body	a) 100 b) 100	a) Not given b) 2+/-0.3-30+/-1.9 ug/g S.E.	a) 39+/-2.9 ug/g b) Not given S.E.	a) Adults fed nonfat dry milk/pure cane sugar with [14-C]-labeled compound (2.65 uCi/mg). Residues determined after 4 d. b) 3 and 48 hr after feeding on treated bait. Total residues. 80-95% exposed to treated bait for 6-24 hr were unable to fly after 24 hr, high levels of mortality not observed prior to 48 hr. Scintillation counting
COMPARATIVE EVALUATIONS; INSECTS; INSECTICIDES; DELIBERATE EXPOSURE; TERRESTRIAL; BODY; PESTICIDES Hollingshaus, J.G.; Little, R.J., Jr. 1984 Pesticide Biochemistry and Physiology 22:337-345				

2-Chlorobenzamine (No postings in CHEMLINE).

Oyster, American

CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12808 Body		Not given	41 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Concentrations expressed as d10-anthracene equivalents. Adjusted for percent recovery. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

2-Cyclohexen-1-one, 3,5,5-trimethyl-

78-59-1

C9-H14-O

MW 138.23, MP -8.1 C, BP 214 C at 754 mm Hg, 99 C at 18 mm Hg, VP 0.44 mm Hg at 25 c

Oyster, American

CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12809 Body		Not given	38 ppb Wet wt	Mean of 8 samples collected 5/80-6/80, Inner Harbor Navigation Canal at Lake Pontchartrain. Louisiana, Lake Pontchartrain GC/MS
ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MOLLUSKS; AQUATIC; LOUISIANA; POLYCYCLIC AROMATIC HYDROCARBONS McFall, J.A.; Antoine, S.R.; DeLeon, I.R. 1985 Chemosphere 14(10):1561-1569				

2-Ethylhexyldiphenyl phosphate (NO postings in CHEMLINE).

Midge
CHIRONOMUS TENTANS

Tissue	Cases Exposure Route	Range	Mean	General Information
12810 Body, whole		7.28-0.4 ug/g Wet wt	Not given	14 d (peak) and 360 d after addition of approx 50 ug/L C(14)-labelled chemical to artificial ponds containing larvae. Canada, Manitoba TLC; GLC

FISHES; AQUATIC; DELIBERATE EXPOSURE; ORGANOPHOSPHATES; WATER POLLUTION
Muir, D.C.G.; Lint, D.; Grift, N.P. 1985 Environmental Toxicology and Chemistry 4:663-675

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
12811 Body, whole		a) 9-0.4 ug/g b) 1.8-0.5 ug/g Wet wt	a) Not given b) Not given	a) 8 hr (peak) and 21 d, hexane-extractable radioactivity, 1.5 ug/g on d 70 b) 21 d (peak) and 70 d, unextractable radioactivity After addition of approx 50 ug/L C(14)-labelled chemical to artificial ponds containing fish from wild population. Estimated from graph. Canada, Manitoba TLC; GLC

FISHES; AQUATIC; DELIBERATE EXPOSURE; ORGANOPHOSPHATES; WATER POLLUTION
Muir, D.C.G.; Lint, D.; Grift, N.P. 1985 Environmental Toxicology and Chemistry 4:663-675

2-Propanol, 1,3-dichloro-, phosphate (3:1)

13674-87-8
C9-H15-Cl6-O4-P
MW 430.91
Goldfish
CARASSIUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12812 Body	3-5	a) Not given b) Not given	a) 3.5 ppm b) 0.8 ppm	a) At 24 hr b) At 96 hr Original concentration of 1 ppm in static system. Bioconcentration factor ranged from 5 to 3. Data on accumulation and bioconcentration of tributylphosphate, trichloroethyl phosphate, and triphenylphosphate were also given. GLC

FISHES; AQUATIC; DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; BODY; BIOCONCENTRATION
Sasaki, K.; Takeda, M.; Uchiyama, M. 1981 Bulletin of Environmental Contamination and Toxicology 27:775-782

2-Propanol, 1,3-dichloro-, phosphate (3:1)

13674-87-8
C9-H15-Cl6-O4-P
MW 430.91
Killifish
ORYZIAS LATIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
12813 Body		Not applicable	2.1 ppm	Constant maximum level reached within 1 d was maintained throughout 30 d exposure to 0.06-0.04 ppm in continuous flow system. Removal to clean water without TDCPP resulted in rapid elimination. Estimated from graph. GC

BIOACCUMULATION; FISHES; AQUATIC; DELIBERATE EXPOSURE; BODY; WATER POLLUTION
Sasaki, K.; Suzuki, T.; Takeda, M.; Uchiyama, M. 1982 Bulletin of Environmental Contamination and Toxicology 28:752-759

Tissue	Cases Exposure Route	Range	Mean	General Information
12814 Body	10-20	a) Not given b) Not given	a) 79 ppm b) 18 ppm	a) At 24 hr b) At 96 hr Original concentration of 1 ppm in static system. Bioconcentration factor ranged from 113 to 77. Data on accumulation and bioconcentration of tributylphosphate, trichloroethyl phosphate, and triphenylphosphate were also given. Level of 3.5 ppm for 24 hr caused spine deformation in 7/10. GLC

FISHES; AQUATIC; DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; BODY; BIOCONCENTRATION
Sasaki, K.; Takeda, M.; Uchiyama, M. 1981 Bulletin of Environmental Contamination and Toxicology 27:775-782

2,2',4'-Trichlorobiphenyl (No postings in CHEMLINE).

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12815 Body		a) Not given b) Not given	a) 0.1+/-0.03 ug/g b) 0.3+/-0.07 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC

BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105

2,2',4'-Trichlorobiphenyl (No postings in CHEMLINE).

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12816 Body		a) Not given b) Not given	a) 0.06+/-0.03 ug/g b) 0.7+/-0.1 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12817 Body		a) Not given b) Not given	a) 0.05+/-0.02 ug/g b) 0.03+/-0.001 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

2,2',5'-Trichlorobiphenyl (No postings in CHEMLINE).

Caddisfly (Cheumatopsyche)
CHEUMATOPSYCHE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12818 Body		a) Not given b) Not given	a) 0.5+/-0.1 ug/g b) 0.6+/-0.03 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC
BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105				

2,2',5'-Trichlorobiphenyl (No postings in CHEMLINE).

Caddisfly (H. leonardi)
HYDROPSYCHE LEONARDI

Tissue	Cases Exposure Route	Range	Mean	General Information
12819 Body		a) Not given b) Not given	a) 0.02+/-0.01 ug/g b) 1.2+/-0.2 ug/g Wet wt	a) Roger's Island b) Thompson's Island Collection sites on upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC

BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105

Caddisfly (P. guttifer)
PYCNOPSYCHE GUTTIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
12820 Body		a) Not given b) Not given	a) 0.1+/-0.05 ug/g b) 0.08+/-0.004 ug/g Wet wt	a) Thompson's Island b) Stillwater Collection sites in upper Hudson River. Stream monitoring through PCB levels in larvae is practical if bioconcentration factor of species is known. New York GC

BODY; INSECTS; AQUATIC; ENVIRONMENTAL EXPOSURE; NEW YORK; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; BIOINDICATORS; WATER POLLUTION
Bush, B.; Simpson, K.W.; Shane, L.; Koblintz, R. 1985 Bulletin of Environmental Contamination and Toxicology 34:96-105

2,3,4,5,2',4',5'-Heptabromobiphenyl (No postings in CHEMLINE).

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12821 Body	a) 9 b) 9 c) 9 d) 18 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 60+/-0 ug b) 640+/-30 ug c) 2430+/-540 ug d) Not detectable	a) Egg-type chickens fed 14 d on 1 ppm fire Master (FF1) b) 10 ppm of FF1 c) Meat-type chickens, 10 ppm of FF1 d) Controls, no FF1, detection limits 0.03 ug/g for egg-type, 0.01 ug/g for meat-type Body burdens. Congener approximately 14% of total mix in FF1. Data on body burdens during withdrawal periods up to 42 d also given. Michigan

DELIBERATE EXPOSURE; CHICKENS; TERRESTRIAL; BODY; FOOD CONTAMINATION; MICHIGAN; POLYBROMINATED BIPHENYLS
Polin, D.; Lehning, E.; Pullen, D.; Bursian, S.; Leavitt, R. 1985 Journal of Toxicology and Environmental Health 16:243-254

2,3,6-Trichlorocymene (No postings in CHEMLINE).

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
12822 Eggs	a) 10 b) 2 c) 9	a) 4-15 ppb b) 21-71 ppb c) 0-13 ppb Wet wt	a) 8.20+/-4.05 ppb b) 46.0+/-35.4 ppb c) 3.56+/-4.50 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC
12823 Liver	a) 10 b) 2 c) 9	a) 0-27 ppb b) 0-13 ppb c) 0-18 ppb Wet wt	a) 8.30+/-7.82 ppb b) 6.50+/-9.19 ppb c) 4.22+/-6.30 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC
12824 Muscle	a) 11 b) 5	a) 0-115 ppb b) 0-17 ppb Wet wt	a) 18.8+/-35.7 ppb b) 5.40+/-6.99 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Finland, Baltic Sea GC-EC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

3,4,5-Trichlorocatechol (No postings in CHEMLINE).

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
12825 Brain	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
12826 Eggs	4	0-48 ng/g Wet wt	20.0+/-36.7 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
12827 Kidney	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC

(next page)

3,4,5-Trichlorocatechol (No postings in CHEMLINE).

Eagle, white-tailed
HALIAEETUS ALBICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12828 Liver	1	Not applicable	86 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
12829 Muscle	4	0-75 ng/g Wet wt	20.0+/-36.7 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12830 Eggs	7	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
12831 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 1.0+/-2.4 ppb b) 0.0 ppb c) 2.9+/-4.0 ppb Wet wt	a) *Kemi River population, collected* 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Detection limit 0.5 ppb. Finland, Baltic Sea GC

(next page)

3,4,5-Trichlorocatechol (No postings in CHEMLINE).

Salmon, Baltic
SALMO SALAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12832 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 4.7+/-6.8 ppb b) 0.0 ppb c) 5.6+/-4.7 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Tissue	Cases Exposure Route	Range	Mean	General Information
12833 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 5.2+/-10.0 ng/g b) 0.0+/-0.0 ng/g c) 4.0+/-9.9 ng/g d) 2.2+/-5.8 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Tissue	Cases Exposure Route	Range	Mean	General Information
12834 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 5.2+/-10.0 ppb b) 0.0 ppb c) 4.0+/-9.9 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Detection limit 0.5 ppb. Finland, Baltic Sea GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS, WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

3,4,5-Trichlorocatechol (No postings in CHEMLINE).

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12835 Liver	11	Not given	15.1+/-33.9 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
12836 Muscle	11	Not given	2.2+/-5.8 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

3,4,5-Trichloroguaiacol (No postings in CHEMLINE).

Ide
LEUCISCUS IDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12837 Muscle	10	Not given	2.90+/-4.76 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 *Chemosphere* 14(5):469-491				

Mussel
ANODONTA PISCINALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12838 Body, whole	7	Not given	17 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

3,4,5-Trichloroguaiacol (No postings in CHEMLINE).

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12839 Muscle	12	Not given	14.8+/-6.76 ug/kg Wet wt	Collected in 1983, Lake Vatia. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Sponge
SPONGILLA LAGUSTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12840 Body, whole	3	Not given	16 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12841 Muscle	45	0-2 ng/g Wet wt	0.178+/-0.535 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

3,4,5-Trichloroguaiacol (No postings in CHEMLINE).

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12842 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.000 ppb b) 0.333+/-0.702 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC
MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12843 Bile	10	Not given	37.0 ug/ml	Alkaline hydrolysis, 120-145-g fishes exposed 10 d to 0.6% v/v solution, 1 sample pool Conjugated forms also measured. GC-EC
FISHES; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; AQUATIC; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; PHENOLS; PENTACHLOROPHENOL; WATER POLLUTION Oikari, A.; Anas, E. 1985 Bulletin of Environmental Contamination and Toxicology 35:802-809				

3,4,5-Trichlorosyringol (No postings in CHEMLINE).

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases *Exposure Route*	Range	Mean	General Information
12844 Bile	10	Not given	9.5 ug/ml	Alkaline hydrolysis, 120-145-g fishes exposed 10 d to 0.6% v/v solution, 1 sample pool Conjugated forms also measured. GC-EC
FISHES; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; AQUATIC; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; PHENOLS; PENTACHLOROPHENOL; WATER POLLUTION Oikari, A.; Anas, E. 1985 Bulletin of Environmental Contamination and Toxicology 35:802-809				

3,4,5,6-Tetrachloroguaiacol (No postings in CHEMLINE).

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12845 Bile	a) 9 b) 10	a) Not given b) Not given	a) 0.41+/-0.15 ug/ml b) 19.1 ug/ml	a) Exposed 30 d to 2% v/v solution treated kraft pulp mill effluent, juveniles, (110-145 g), 3 sample pools b) Alkaline hydrolysis, 120-145-g fishes exposed 10 d to 0.6% v/v solution, 1 sample pool Conjugated forms also measured. GC-EC

FISHES; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; AQUATIC; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; PHENOLS; PENTACHLOROPHENOL; WATER POLLUTION
Oikari, A.; Anas, E. 1985 Bulletin of Environmental Contamination and Toxicology 35:802-809

3H-Pyrazol-3-one- 2,4-dihydro-5-methyl-2-(2-(2-naphthalenyloxy(ethyl)-

59040-30-1
C16-H16-N2-O2
Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12846 Body		Not applicable	7.36 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

4(1H)-Pyridinone, 1-methyl-3-phenyl-5-(3-(trifluoromethyl)phenyl)-
59756-60-4
C19-H14-F3-N-O
Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12847 Body, whole	a) 4 b) 4 c) 4 d) 4 e) 4 f) 4	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) 1.25+/-0.06 mg/kg c) 1.34+/-0.12 mg/kg d) 1.44+/-0.06 mg/kg e) 5.40+/-0.09 mg/kg f) 10.12+/-0.62 mg/kg	a) Controls b) Nominal level in water 0.12 mg/L c) 0.25 mg/L d) 0.50 mg/L e) 1.0 mg/L f) 2.0 mg/L 15-23% of total residue was 4-hydroxy-metabolite. After fry were continuously exposed for 60 d. Growth, survival not adversely affected at 0.5 mg/L or less. Bioconcentration factor ranged from 2 to 9 for parent compound, 3 to 10 for total. Growth significantly reduced at 1, 2 mg/L within 15 d. 96-h LC50 was 10.4+/-3.9 mg/L
DELIBERATE EXPOSURE; FISHES; AQUATIC; BIOACCUMULATION; WATER POLLUTION; HERBICIDES; PESTICIDES; BODY Hamelink, J.L.; Buckler, D.R.; Mayer, F.L.; Palawski, D.U.; Sanders, H.O. 1986 Environmental Toxicology and Chemistry 5:87-94				

4,4-Dichlorodiphenyltrichloroethane (No postings in CHEMLINE).

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12848 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
12849 Liver	1	Not applicable	5060 mg/kg Lipid basis	Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

4,4-Dichlorodiphenyltrichloroethane (No postings in CHEMLINE).

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
12850 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected from local fish market in Porto Santo, East of Madeira. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12851 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected off Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12852 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

4,4'-Bipyridinium, 1,1'-dimethyl-
4685-14-7
C12-H14-N2
MW 186, MP 300 C (decomp)

Mosquito
CULEX PIPIENS

Tissue	Cases Exposure Route	Range	Mean	General Information
12853 Body		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given	a) 0.0003 ppm b) 0.0755 ppm c) 0.0008 ppm d) 0.0161 ppm e) 0.0004 ppm f) 0.0199 ppm g) Not detected h) 0.0004 ppm i) Not detected j) 0.0198 ppm	a) 5 mg [14-C]-labeled paraquat applied to sorghum leaves, measured as extractable [14-C] b) Unextractable [14-C] c) Co-applied with atrazine, measured as extractable [14-C] d) Unextractable [14-C] e) Co-applied with oryzalin, measured as extractable [14-C] f) Unextractable [14-C] g) Co-applied with linuron, measured as extractable [14-C] h) Unextractable [14-C] i) Co-applied with alachlor, measured as extractable [14-C] j) Unextractable [14-C] In co-application, paraquat applied to leaves on d 5. Measured d 32 in larvae. Detection limit not given. Scintillation counting; TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12854 Body		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given	a) Trace b) 0.2790 ppm c) 0.0001 ppm d) 0.0093 ppm e) 0.0003 ppm f) 0.0305 ppm g) 0.0001 ppm h) 0.0632 ppm i) 0.0046 ppm j) 0.0026 ppm	a) 5 mg [14-C]-labeled paraquat applied to sorghum leaves, measured as extractable [14-C] b) Unextractable [14-C] c) Co-applied with atrazine, measured as extractable [14-C] d) Unextractable [14-C] e) Co-applied with oryzalin, measured as extractable [14-C] f) Unextractable [14-C] g) Co-applied with linuron, measured as extractable [14-C] h) Unextractable [14-C] i) Co-applied with alachlor, measured as extractable [14-C] j) Unextractable [14-C] In co-application, paraquat applied to leaves on d 5. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

4,4'-Bipyridinium, 1,1'-dimethyl-
4685-14-7
C12-H14-N2
MW 186, MP 300 C (decomp)

Snail
PHYSA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12855 Body		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given	a) 0.0001 ppm b) 0.1014 ppm c) 0.0001 ppm d) 0.0398 ppm e) Trace f) 0.0117 ppm g) Trace h) 0.0129 ppm i) 0.0052 ppm j) 0.0871 ppm	a) 5 mg [14-C]-labeled paraquat applied to sorghum leaves, measured as extractable [14-C] b) Unextractable [14-C] c) Co-applied with atrazine, measured as extractable [14-C] d) Unextractable [14-C] e) Co-applied with oryzalin, measured as extractable [14-C] f) Unextractable [14-C] g) Co-applied with linuron, measured as extractable [14-C] h) Unextractable [14-C] i) Co-applied with alachlor, measured as extractable [14-C] j) Unextractable [14-C] In co-application, paraquat applied to leaves on d 5. Measured d 32. TLC
DELIBERATE EXPOSURE; COMPARATIVE EVALUATIONS; HERBICIDES; SNAILS; FISHES; MOSQUITOES; BODY; AQUATIC; PESTICIDES Francis, B.M.; Lampman, R.L.; Metcalf, R.L. 1985 Archives of Environmental Contamination and Toxicology 14:693-704				

4,5,6-Trichloroguaiacol (No postings in CHEMLINE).

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
12856 Brain	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
12857 Eggs	4	0-136 ng/g Wet wt	34+/-51 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
12858 Kidney	1	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
12859 Liver	1	Not applicable	133 ng/g Wet wt	Collected in 1981-1982. Finland GC-EC
12860 Muscle	4	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

4,5,6-Trichloroguaiacol (No postings in CHEMLINE).

Ide
LEUCISCUS IDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12861 Muscle	11	Not given	12.5+/-21.5 ug/kg Wet wt	Collected at Lake Vatia in 1983. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Midge
CHIRONOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12862 Body, whole	10	Not given	8 ng/g Wet wt	Collected at Lake Vatia in 1983. Estimated from graph. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12863 Eggs	7	Not applicable	0 ng/g Wet wt	Collected in 1980-1982. Limit of detection 1 ppb. Finland GC-EC
BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491				

4,5,6-Trichloroguaiacol (No postings in CHEMLINE).

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12864 Muscle	a) 10 b) 15 c) 12	a) Not given b) Not given c) Not given	a) 8.39+/-11.0 ug/kg b) 5.3+/-14.5 ug/kg c) 18.3+/-45.6 ug/kg Wet wt	a) 1978 b) 1982 c) 1983 Year of collection, Lake Vatia. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Roach
LEUCISCUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12865 Muscle	a) 15 b) 12 c) 10	a) Not given b) Not given c) Not given	a) 23.3+/-19.6 ug/kg b) 9.30+/-12.2 ug/kg c) 46.5+/-52.0 ug/kg Wet wt	a) Ristinselka, 1982 b) Tiirinselka, 1982 c) Vatia, 1978 Lakesite and year of collection. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

4,5,6-Trichloroguaiacol (No postings in CHEMLINE).

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
12866 Eggs	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 1.7+/-4.4 ppb b) 4.0+/-6.9 ppb c) 1.8+/-5.7 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Finland, Baltic Sea GC
12867 Liver	a) 15 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 8.4+/-24.4 ppb b) 30.0+/-39.7 ppb c) 5.4+/-6.9 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacraficed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. *Finland, Baltic Sea* GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Tissue	Cases Exposure Route	Range	Mean	General Information
12868 Muscle	a) 13 b) 3 c) 10 d) 11	a) Not given b) Not given c) Not given d) Not given	a) 9.2+/-17.7 ng/g b) 0.0+/-0.0 ng/g c) 0.0+/-0.0 ng/g d) 2.5+/-8.4 ng/g Wet wt	a) Kemi River, SALAR b) Kymi River, SALAR c) Hatchery, SALAR d) Kemi River, TRUTTA Site and variety collected in 1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE

Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

4,5,6-Trichloroguaiacol (No postings in CHEMLINE).

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
12869 Muscle	a) 13 b) 3 c) 10	a) Not given b) Not given c) Not given	a) 9.2+/-17.7 ppb b) 0.0 ppb c) 0.0 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5 43%. Detection limit 0.5 ppb. Finland, Baltic Sea GC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES
Vuorinen, P.J.; Paasivirta, J.; Piilola, T ; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12870 Muscle	45	0-33 ng/g Wet wt	0.733+/-4.92 ng/g Wet wt	Juveniles collected from nests, immediately prior to flight, in South Finland 1982-1983. Finland GC-EC

BODY; MUSCLES; EGGS; BRAIN; LIVER; KIDNEYS; FISHES; AQUATIC; BIRDS; TERRESTRIAL; FINLAND; JUVENILES; ADULTS; PENTACHLOROPHENOL; POLYCHLORINATED PHENOLS; PHENOLS; CATECHOLS; BIOACCUMULATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE
Paasivirta, J.; Heinola, K.; Humppi, T.; Karjalainen, A.; Knuutinen, J.; Mantykoski, K.; Paukku, R.; Piilola, T.; Surma-Aho, K.; Tarhanen, J.; Welling, L.; Vihonen, H.; Sarkka, J. 1985 Chemosphere 14(5):469-491

Tissue	Cases Exposure Route	Range	Mean	General Information
12871 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.000 ppb b) 1.38+/-6.74 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC

MUSCLES, ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES
Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468

4,5,6-Trichloroguaiacol (No postings in CHEMLINE).

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12872 Liver	11	Not given	5.1+/-13.2 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland GC
12873 Muscle	11	Not given	2.5+/-8.4 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12874 Bile	10	Not given	5.6 ug/ml	Alkaline hydrolysis, 120-145-g fishes exposed 10 d to 0.6% v/v solution, 1 sample pool Conjugated forms also measured. GC-EC
FISHES; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; AQUATIC; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; PHENOLS; PENTACHLOROPHENOL; WATER POLLUTION Oikari, A.; Anas, E. 1985 Bulletin of Environmental Contamination and Toxicology 35:802-809				

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-

39765-80-5
C10-H5-Cl9
MW 444.23

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12875 Liver	1	Not applicable	8 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Asores. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Crow, American
CORVUS BRACHYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12876 Brain	1	Not applicable	0.41 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1979. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12877 Eggs	3	Not detected	Not detected	1978 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12878 Brain	a) 2 b) 1 c) 3	a) 0.47-1.5 ppm b) Not detected c) Not detected Wet wt	a) 0.99 ppm b) Not detected c) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 5/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC

(next page)

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Egret, cattle
BUBULCUS IBIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12879 Carcass	a) 2 b) 1 c) 1 d) 3	a) 0.28-1.70 ppm b) Not detected c) Not detected d) Not detected Wet wt	a) 0.99 ppm b) Not detected c) Not detected d) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12880 Brain	a) 4 b) 1	a) Not detected b) Not applicable	a) Not detected b) 0.78 ppm Wet wt	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12881 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.78 Wet wt	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Egret, snowy
EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
12882 Brain	1	Not detected	Not detected	Dead chick, 6/77. Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
12883 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected-0.22 ppm b) Not detected c) Not detected d) Not detected Wet wt	a) Not applicable b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12884 Body		0.00-0.77 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=11.0 ug/g. Part of National Pesticides Monitoring Program. United States GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING
Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
12885 Liver	1	Not applicable	245 mg/kg Lipid basis	Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
12886 Liver	1	Not applicable	4 mg/kg Lipid basis	Collected from local fish market in Porto Santo, East of Madeira. Surface water habitat. *Atlantic Ocean* GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12887 Liver	1	Not applicable	3 mg/kg Lipid basis	Collected off Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Grebe, western
AECHMOPHORUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12888 Eggs	12	Not detected-0.25 ppm Wet wt	Not given	Collected 1981. Detected in 2/12. Detection limit 0.1 ppm. California, Tule Lake National Wildlife Refuge GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; EGGS; BODY; BRAIN; DDT; DDE; CALIFORNIA; DIELDRIN; WATERFOWL; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; BIOLOGICAL MONITORING; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; PESTICIDES

Boellstorff, D.E.; Ohlendorf, H.M.; Anderson, D.W.; O'Neill, E.J.; Keith, J.O.; Prouty, R.M. 1985 Archives of Environmental Contamination and Toxicology 14:485-493

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
12889 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Wisconsin, adult, 8/78 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12890 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not applicable b) Not detected c) Not detected d) Not detected e) Not applicable f) Not detected-0.11 ppm g) Not detected Wet wt	a) 0.12 ppm b) Not detected c) Not detected d) Not detected e) 1.0 ppm f) Not applicable g) Not detected Wet wt	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23
Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
12891 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-1.0 ppm b) Not detected-1.3 ppm c) Not detected-1.0 ppm d) Not applicable e) Not applicable f) Not detected g) Not detected-1.3 ppm h) 0.12-2.7 ppm Wet wt	a) Not applicable b) Not applicable c) Not applicable d) 2.70 ppm e) Not detected f) Not applicable g) 0.31 ppm h) 1.26 ppm Wet wt	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-5/79 Part of large study of organochlorines and mortality in herons. Mean in h) calculated by extractor. Detection limit 0.1 ppm. GLC
12892 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected-1.70 ppm c) Not detected-2.50 ppm d) 0.17-3.00 ppm e) Not applicable f) Not detected g) Not detected-1.20 ppm h) Not applicable Wet wt	a) Not detected b) Not applicable c) Not applicable d) 1.29 ppm e) 0.45 ppm f) Not detected g) Not applicable h) 0.40 ppm Wet wt	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Mean in d) calculated by extractor. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12893 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected Wet wt	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA, FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12894 Carcass	a) 6 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12895 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12896 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Magpie, black-billed
PICA PICA

Tissue	*Cases* Exposure Route	Range	Mean	General Information
12897 Brain	3	0.12-0.56 ug/g Wet wt	0.29 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976-1978. Oregon; Washington GLC
12898 Eggs	9	Not applicable	0.29 ug/g Wet wt	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 1 positive. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. *1986 Science of the Total Environment* 46:73-81				

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12899 Brain	5	0.10-2.0 ug/g Wet wt	0.77 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976-1977. Oregon; Washington GLC

(next page)

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Pheasant, ring-necked
PHASIANUS COLCHICUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12900 Eggs	a) 5 b) 2	a) Not detected-0.75 ug/g b) Not detected Wet wt	a) Not given b) Not detected	a) 1978, 2 positive b) 1980 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 *Science of the Total Environment* 46:73-81

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12901 Liver	1	Not aplicable	12 mg/kg Lipid basis	Collected at Lake Sete Cidades in Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 *Chemosphere* 13(11):1255-1267

Quail, California
CALLIPEPLA CALIFORNICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12902 Brain	1	Not applicable	0.34 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976. Oregon; Washington GLC
12903 Eggs	1	Not detected	Not detected	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 *Science of the Total Environment* 46:73-81

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23
Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
12904 Eggs	a) 15 b) 3 c) 10	a) 0-16 pb b) 3-13 ppb c) 1-15 ppb Wet wt	a) 9.53+/-4.47 ppb b) 6.67+/-5.51 ppb c) 7.30+/-3 95 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC
12905 Liver	a) 15 b) 3 c) 10	a) 0-100 ppb b) Not applicable c) 0-7 ppb Wet wt	a) 10.1+/-25.7 ppb b) 0.00 ppb c) 3.20+/-2.10 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC
12906 Muscle	a) 14 b) 3 c) 10	a) 0-24 ng/g b) 6-18 ng/g c) 0-20 ng/g Wet wt	a) 14.2+/-6.41 ng/g b) 12.3+/-6.03 ng/g c) 10.7+/-6 86 ng/g Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Detection limit 0.5 ng/g. Finland, Baltic Sea GC-EC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES
Vuorinen, P J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 *Chemosphere* 14(11/12):1729-1740

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12907 Eggs	19	Not detected-0.11 ug/g Wet wt	*Not given*	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 2 positive. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46.73-81

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12908 Body	1	Not applicable	0.09 ppm Wet wt	Collected 6-7/1980-81. Colorado, Boulder Co. and Gilpin Co., Rocky Mountains GLC; EC

BIRDS; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS; DDE; POLYCHLORINATED BIPHENYLS; EGGS; BODY; BRAIN; DDT; HEPTACHLOR EPOXIDE; DIELDRIN; TERRESTRIAL
DeWeese, L.R.; Cohen, R.R.; Stafford, C.J. 1985 Bulletin of Environmental Contamination and Toxicology 35:767-775

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12909 Carcass	10	0.10-0.10 ppm Wet wt	0.02+/-0.01 ppm S.E. Wet wt Arithmetic	Detected in 2/10 individuals. Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; Idaho; Oregon GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE, COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12910 Eggs	11	2-17 ppb Wet wt	9.82+/-3.89 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland, Baltic Sea GC-EC
12911 Liver	11	0-2 ppb Wet wt	0.82+/-0.87 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland, Baltic Sea GC-EC
12912 Muscle	11	0-13 ppb Wet wt	7.18+/-4.51 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC-EC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES
Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3alpha,3aalpha,4beta,7beta,7aalpha)-
39765-80-5
C10-H5-Cl9
MW 444.23

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
12913 Fillets	3	0.128-0.142 ppm	0.134+/-0.0039 ppm	Included skin. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9				

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12914 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.87+/-1.46 ppm b) 0.34+/-0.81 ppm c) 4.01+/-6.19 ppm d) 0.93+/-1.61 ppm e) 0.68+/-0.67 ppm Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water. New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 53%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-nonachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

3734-49-4

C10-H5-Cl9

Catfish, channel

ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12915 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) 0.044 ppm d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Only trans isomers detected. Louisiana GC-EC
12916 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes cis and trans isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Crappie

POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12917 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes cis and trans isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-nonachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

3734-49-4

C10-H5-Cl9

Crayfish

PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
12918 Body, whole	50	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) Not detected c) 0.020 ppm d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 10 individuals. Limit of detection 0.05 ppm. Includes cis and trans isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12919 Body, whole		<0.5-3,070 ppb	Not given	Composite sample from 22 watersheds near Great Lakes, 1978. Total of 26 samples collected, included 138 individuals: walleye, carp, white sucker, channel catfish, freshwater drum, quillback, stone roller, goldfish, brown trout, hog sucker, coho salmon. Detection limit 0.5 ppb. US EPA Region V: Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, New York MID GLC/MS

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; MINNESOTA; WISCONSIN; MICHIGAN; OHIO; INDIANA; PENNSYLVANIA; NEW YORK; DDT; DDE; POLYCHLORINATED BIPHENYLS; HEPTACHLOR; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; OXYCHLORDANE; CHLORDANE; NONACHLOR

Veith, G.D.; Kuehl, D.W.; Leonard, E.N.; Welch, K.; Pratt, G 1981 Pesticides Monitoring Journal 15(1):1-8

4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-nonachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
3734-49-4
C10-H5-Cl9
Frog
RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12920 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes cis and trans isomers. Louisiana GC-EC
12921 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes cis and trans isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12922 Body, whole	10	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Includes cis and trans isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-nonachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

3734-49-4

C10-H5-Cl9

Osprey

PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12923 Body				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf				

Raccoon

PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12924 Muscle	10	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Includes cis and trans isomers. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-nonachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
3734-49-4
C10-H5-Cl9
Shad
DOROSOMA *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
12925 Body, whole	25	a) Not given b) Not applicable c) Not given d) Not applicable e) Not given f) Not applicable	a) 0.010 ppm b) Not detected c) 0.026 ppm d) Not detected e) 0.012 ppm f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes cis and trans *isomers*. Means a), c) and e) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Snake, water
NATRIX *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
12926 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) Not detected	a) Lake Verret b) Plaquemine-Brule Bayou c) East Franklin Site of collection in 1979. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes cis and trans *isomers*. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

4,7-Methanoindan, 1,2,3,4,5,6,7,8,8-nonachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

3734-49-4
C10-H5-Cl9
Willet
CATOPTROPHORUS SEMIPALMATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12927 Carcass	7	Not applicable	0.14 ppm Wet wt	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 1 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON, DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8
C10-H4-Cl8-O
MW 423.77
Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12928 Body		Not applicable	0.02 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
12929 Body, whole				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico

(next page)

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77
Bat

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12930 Brain				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
12931 Carcass				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico

ENVIRONMENTAL EXPOSURE; REVIEW; DELIBERATE EXPOSURE; TERRESTRIAL; BATS; CARCASS; BODY; LIVER; ADIPOSE TISSUE; BRAIN; GASTROINTESTINAL SYSTEM; MAMMARY GLANDS; MILK; HEART; LUNGS; KIDNEYS; SKIN; MUSCLES; HAIR; PESTICIDES; PESTICIDE RESIDUES; INSECTICIDES; DDT; DDD; DDE; DIELDRIN; LINDANE; POLYCHLORINATED BIPHENYLS; MIREX; HEPTACHLOR EPOXIDE; OXYCHLORDANE; SELENIUM; MERCURY; LEAD; METALS
Clark, D.R. 1981 U.S. Department of the Interior, Special Scientific Report - Wildlife No. 235, 27 pp.

Blackbird, Brewer's
EUPHAGUS CYANOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12932 Carcass	a) 25 b) 79	a) 0.05-0.28 ppm b) Not detected-0.04 ppm Wet wt	a) 0.02+/-0.01 ppm b) <0.01 ppm S.E. Wet wt Arithmetic	a) Detected in 3/25 individuals b) Detected in 1/9 composite samples. Migratory omnivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Colorado; Utah; Wyoming; Idaho; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 Cl) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 Cl)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Blackbird, red-winged
AGELAIUS PHOENICEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12933 Carcass	44	Not detected-0.05 ppm Wet wt	0.01+/-0.01 ppm S.E. Wet wt Arithmetic	Detected in 1 of 5 composite samples. Nonmigratory omnivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Colorado; Utah; Idaho; Oregon; Montana GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12934 Body		*Not applicable*	*<0.002 mg/kg*	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12935 Body		Not applicable	<0.002 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8

C10-H4-Cl8-O

MW 423.77

Bullhead, brown

ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12936 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, yellow

ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12937 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 Cl) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 Cl)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12938 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) <0.002 mg/kg b) 0.20 mg/kg c) 0.40 mg/kg d) 0.03 mg/kg e) <0.002 mg/kg f) <0.002 mg/kg g) 0.15 mg/kg h) 0.04 mg/kg i) 0.15 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Tissue	Cases Exposure Route	Range	Mean	General Information
12939 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12940 Body		Not applicable	0.04 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Crow, American
CORVUS BRACHYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12941 Brain	1	Not applicable	0.92 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1979. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE, BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Dove, mourning
ZENAIDA MACROURA

Tissue	Cases Exposure Route	Range	Mean	General Information
12942 Carcass	70	Not detected-0.11 ppm Wet wt	0.02+/-0.02 ppm S.E. Wet wt Arithmetic	Detected in 1 of 7 composite samples. Migratory granivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Idaho; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA, COLORADO, NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
12943 Eggs	a) 3 b) 10	a) Not detected-0.23 ug/g b) Not detected-0.61 ug/g Wet wt	a) Not given b) Not given	a) 1978, 1 positive b) 1979, 3 positive Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12944 Brain	a) 2 b) 1 c) 3	a) 0.11-0.52 ppm b) Not detected c) Not detected Wet wt	a) 0.32 ppm b) Not detected c) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 5/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12945 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected-0.40 ppm b) Not applicable c) Not applicable d) Not detected Wet wt	a) Not applicable b) 0.10 ppm c) 0.10 ppm d) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortaltiy in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; *BIOACCUMULATION*; *PESTICIDE* RESIDUES

Ohlendorf, H.M ; Swineford D M.: Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12946 Brain	a) 4 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12947 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) *California, adult*, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Egret, snowy
EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
12948 Brain	1	Not detected	Not detected	Dead chick, 6/77. Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
12949 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12950 Body		0.00-0.33 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=4.6 ug/g. Part of National Pesticides Monitoring Program. United States GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING
Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8
C10-H4-Cl8-O
MW 423.77

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
12951 Body, whole		<0.5-167 ppb	Not given	Composite sample from 22 watersheds near Great Lakes, 1978. Total of 26 samples collected, included 138 individuals: walleye, carp, white sucker, channel catfish, freshwater drum, quillback, stone roller, goldfish, brown trout, hog sucker, coho salmon. Detection limit 0.5 ppb. US EPA Region V: Minnestota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, New York MID GLC/MS
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; MINNESOTA; WISCONSIN; MICHIGAN; OHIO; INDIANA; PENNSYLVANIA; NEW YORK; DDT; DDE; POLYCHLORINATED BIPHENYLS; HEPTACHLOR; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; OXYCHLORDANE; CHLORDANE; NONACHLOR Veith, G.D.; Kuehl, D.W.; Leonard, E.N.; Welch, K.; Pratt, G. 1981 Pesticides Monitoring Journal 15(1).1-8				

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
12952 Liver	1	Not applicable	20 mg/kg Lipid basis	Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
12953 Liver	1	Not applicable	4 mg/kg Lipid basis	Collected from local fish market in Porto Santo, East of Madeira. Surface water habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
12954 Liver	1	Not applicable	2 mg/kg Lipid basis	Collected off Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12955 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.04 ppm b) 0.41 ppm c) 0.16 ppm d) 0.34 ppm e) 0.12 ppm f) 0.13 ppm Wet wt	a) Kent Island, Bay of Fundy b) Agawa Rock, Lake Superior c) Chantry Island, Lake Huron d) Presqu'ile, Lake Ontario e) Channel-Shelter Island, Saginaw Bay f) Fighting Island, Detroit River Pooled homogenates from 15-25 eggs. Collected 1981. Great Lakes, Atlantic Ocean GC

ENVIRONMENTAL EXPOSURE; AQUATIC; EGGS; GREAT LAKES; WATER POLLUTION; PESTICIDES; BIRDS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; DIELDRIN; OXYCHLORDANE
Ellenton, J.A.; Brownlee, L.J.; Hollebone, B.R. 1985 Environmental Toxicology and Chemistry 4:615-622

Gull, ring-billed
LARUS DELAWARENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12956 Brain	1	Not applicable	0.86 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1989. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8
C10-H4-Cl8-O
MW 423.77

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
12957 Brain	a) 1 b) 3 c) 1	a) Not applicable b) Not detected-0.13 ppm c) Not detected Wet wt	a) 0.14 ppm b) Not applicable c) Not detected Wet wt	a) Wisconsin, adult, 8/78 b) Nevada, adult, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12958 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable f) Not detected-0.13 ppm g) Not applicable Wet wt	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.68 ppm f) Not applicable g) Not detected Wet wt	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
12959 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-0.24 ppm b) Not detected-0.66 ppm c) Not detected-0.20 ppm d) Not applicable e) Not applicable f) Not detected g) Not detected-0.87 ppm h) Not detected-0.91 ppm Wet wt	a) Not applicable b) Not applicable c) Not applicable d) 0.79 ppm e) 0.50 ppm f) Not detected g) Not applicable h) Not applicable Wet wt	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 12/76-5/79 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12 76-5/79 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
12960 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected-0.75 ppm b) Not detected-0.50 ppm c) Not detected-0.28 ppm d) Not detected-0.19 ppm e) Not applicable f) Not detected-0.54 ppm g) Not detected-0.85 ppm h) Not applicable Wet wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) 0.13 ppm f) Not applicable g) Not applicable h) 0.12 ppm Wet wt	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8
C10-H4-Cl8-O
MW 423.77

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	*General Information*
12961 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135				

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	*General Information*
12962 Carcass	a) 6 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases *Exposure Route*	Range	Mean	General Information
12963 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
12964 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12965 Carcass	19	0.05-0.18 ppm Wet wt	0.03+/-0.01 ppm S.E. Wet wt Arithmetic	a) Detected in 5/19 individuals. Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah; Oregon; Montana; Colorado GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Magpie, black-billed
PICA PICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12966 Brain	4	0.47-1.4 ug/g Wet wt	0.91 ug/g	From group found dead or dying, Umatilla National Wildlife Refuge, 1976-1980. Oregon; Washington GLC
12967 Eggs	9	Not detected-0.62 ug/g Wet wt	0.15 ug/g Geometric Wet wt	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 7 positive. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8
C10-H4-Cl8-O
MW 423.77

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12968 Brain	5	0.60-1.3 ug/g Wet wt	0.97 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976-1977. Oregon; Washington GLC
12969 Eggs	a) 5 b) 10 c) 2	a) Not detected-0.68 ug/g b) Not detected-0.34 ug/g c) Not detected Wet wt	a) Not given b) Not given c) Not detected	a) 1978, 2 positive b) 1979, 2 positive c) 1980 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN

Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12970 Body		a) Not applicable b) Not applicable	a) <0.002 mg/kg b) 0.47 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
12971 Liver	1	Not applicable	3 mg/kg Lipid basis	Collected at Lake Sete Cidades in Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Quail, California
CALLIPEPLA CALIFORNICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12972 Brain	1	Not applicable	0.33 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976. Oregon; Washington GLC
12973 Eggs	1	Not applicable	0.13 ug/g Wet wt	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN

Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
12974 Eggs	a) 15 b) 3 c) 10	a) 2-18 ppb b) 3-28 ppb c) 2-6 ppb Wet wt	a) 8.60+/-4.31 ppb b) 12.7+/-13.4 ppb c) 4.60+/-1.35 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Finland, Baltic Sea GC-EC
12975 Liver	a) 15 b) 3 c) 10	a) 0-24 ppb b) 0-17 ppb c) 1-12 ppb Wet wt	a) 5.73+/-5.98 ppb b) 6.00+/-9.54 ppb c) 4.20+/-3.39 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC

(next page)

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8
C10-H4-Cl8-O
MW 423.77

Salmon, Baltic
SALMO SALAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12976 Muscle	a) 14 b) 3 c) 10	a) 4-40 ng/g b) 20-35 ng/g c) 3-21 ng/g Wet wt	a) 13.6+/-10.7 ng/g b) 28.7+/-7.77 ng/g c) 10.0+/-7.80 ng/g Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43% Finland, Baltic Sea GC-EC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12977 Adipose	a) 21 b) 24	a) Not given b) Not given	a) 24.2+/-42 ppb b) 76.2+/-128 ppb Fat basis	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC
MUSCLES, ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468				

Tissue	Cases Exposure Route	Range	Mean	General Information
12978 Eggs	19	Not detected-0.50 ug/g Wet wt	Not given	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 6 positive. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS- WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8

C10-H4-Cl8-O

MW 423.77

Starling

STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12979 Muscle	a) 21 b) 24	a) Not given b) Not given	a) 0.429+/-0.676 ppb b) 1.54+/-2.90 ppb Wet wt	a) 1982 b) 1983 Years collected from nests, immediately prior to flight. Detection limit 0.5 ng/g (ppb). Finland GC-EC

MUSCLES; ADIPOSE TISSUE; BIRDS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; FINLAND; JUVENILES; CHLORINATED HYDROCARBONS; DDD; DDE; DDT; HEXACHLOROBENZENE; MERCURY; LINDANE; OXYCHLORDANE; BIOACCUMULATION; PESTICIDES; PESTICIDE RESIDUES

Paasivirta, J.; Paukku, R.; Surma-Aho, K.; Welling, L. 1985 Chemosphere 14(5):457-468

Sucker, redhorse

MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
12980 Body		Not applicable	0.05 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Sucker, white

CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
12981 Body		Not applicable	0.02 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 Cl) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 Cl)

26880-48-8
C10-H4-Cl8-O
MW 423.77

Swallow, barn
HIRUNDO RUSTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
12982 Carcass	21	0.05-0.05 ppm Wet wt	0.05+/-0.00 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in both of 2 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
12983 Body	7	0.05-0.55 ppm Wet wt	Not given	Collected 6-7/1980-81. Colorado, Boulder Co. and Gilpin Co., Rocky Mountains GLC; EC

BIRDS; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS; DDE; POLYCHLORINATED BIPHENYLS; EGGS; BODY; BRAIN; DDT; HEPTACHLOR EPOXIDE; DIELDRIN; TERRESTRIAL

DeWeese, L.R.; Cohen, R.R.; Stafford, C.J. 1985 Bulletin of Environmental Contamination and Toxicology 35:767-775

Tissue	Cases Exposure Route	Range	Mean	General Information
12984 Carcass	a) 23 b) 14	a) 0.05-0.29 ppm b) 0.08-0.19 ppm Wet wt	a) 0.05+/-0.01 ppm b) 0.13+/-0.05 ppm S.E. Wet wt Arithmetic	a) Detected in 13/23 individuals b) Detected in 2/2 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Colorado; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES

DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 Cl) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 Cl)
26880-48-8
C10-H4-Cl8-O
MW 423.77

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
12985 Carcass	a) 10 b) 48	a) 0.07-0.18 ppm b) 0.05-0.10 ppm Wet wt	a) 0.04+/-0.02 ppm b) 0.07+/-0.01 ppm S.E. Wet wt Arithmetic	Detected in 4/10 individuals b) Detected in 6/6 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; Idaho; Oregon GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Tern, Forster's
STERNA FORSTERI

Tissue	Cases Exposure Route	Range	Mean	General Information
12986 Eggs	1	Not detected	Not detected	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
12987 Eggs	11	0-35 ppb Wet wt	18.5+/-8.68 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland, Baltic Sea GC-EC
12988 Liver	11	0-18 ppb Wet wt	12.3+/-5.61 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland, Baltic Sea GC-EC

(next page)

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 CI) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 CI)

26880-48-8
C10-H4-Cl8-O
MW 423.77

Trout, Bothnian Bay
SALMO TRUTTA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
12989 Muscle	11	0-19 ppb Wet wt	10.5+/-6.56 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC-EC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
12990 Body	a) 15 b) 50 c) 6 d) 10 e) 7 f) 10	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.230 mg/kg b) 0.075 mg/kg c) 0.038 mg/kg d) 0.059 mg/kg e) 0.120 mg/kg f) 0.041 mg/kg Wet wt	a) 1977, Lake Michigan, off Saugatuck b) 1982 c) 1978, Lake Huron, off Rockport d) 1982 e) 1977, Lake Superior, off Apostle Islands f) 1982 Collection dates (fall) and sites. 1977-1982 samples were composites of 5 fish each. Data included for additional years. Great Lakes, upper GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; POLYCHLORINATED BIPHENYLS; DDT; DIELDRIN; OXYCHLORDANE; GREAT LAKES; WATER POLLUTION; COMPARATIVE EVALUATIONS

DeVault, D.S ; Willford. W.A.; Hesselberg, R.J.; Nortrupt, D.A.; Rundberg, E.G.S.; Alwan, A.K.; Bautista, C. 1986 Archives of Environmental Contamination and Toxicology 15:349-356

Tissue	Cases Exposure Route	Range	Mean	General Information
12991 Fillets	3	0.023-0.027 ppm	0.025+/-0.0014 ppm	Included skin. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION

Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-1,2-epoxy-3a,4,7,7a-tetrahydro- (8 Cl) 2,5-Methano-2H-indeno(1,2-b)oxirene, 1a,2,3,4,5,6a,7,7-octachloro-1a,1b,5,5a,6,6a-hexahydro- (9 Cl)
26880-48-8
C10-H4-Cl8-O
MW 423.77
Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases / Exposure Route	Range	Mean	General Information
12992 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 2.00+/-1.27 ppmw b) 1.53+/-3.17 ppm c) 9.33+/-16.10 ppm d) 2.12+/-3.03 ppm e) 1.30+/-1.04 ppm Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakrusack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 88%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC

ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR, DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION
Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases / Exposure Route	Range	Mean	General Information
12993 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.004 mg/kg b) 0.13 mg/kg c) 0.01 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 Cl); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)
57-74-9
C10-H6-Cl8
MW 409.8
Bass, striped
MORONE SAXATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
12994 *Eggs*	2	1.77-3.33 ug/g	1.28 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC
12995 Gonads	10	0.08-0.20 ug/g	0.91 ug/g	Collected Rock hall Region, April 1979. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC
12996 Muscle	a) 1 b) 10	a) Not applicable b) 0.08-0.20 ug/g	a) Not detected b) 0.11 ug/g	a) Collected Patapsco River, spring, 1976 b) Collected Rock hall Region, April 1979 Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC
ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742				

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
12997 Body	3-5/site	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable	a) 0 mg/kg b) 0.912 mg/kg c) 0 mg/kg d) 0.759 mg/kg e) 0.011 mg/kg f) 0.188 mg/kg g) 0 mg/kg h) 0.043 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Firebaugh c) At Fremont Ford State Recreational Area d) Near Crow's Landing e) At South County Park f) Salt Slough below Lander Avenue g) Merced River below CA highway h) At George J. Hatfield State Recreational Area Organochlorine levels generally increased downstream, irrigated agriculture areas. July, 1981. Detection limit 0.004 mg/kg. California, San Joaquin Valley GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; PESTICIDES; INDUSTRIAL CHEMICALS; CALIFORNIA; CHLORDANE; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; WATER POLLUTION; INSECTICIDES; HERBICIDES; BODY Saiki, M.K.; Schmitt, C.J. 1986 Archives of Environmental Contamination and Toxicology 15:357-366				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

57-74-9
C10-H6-Cl8
MW 409.8
Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
12998 Body	3-5/site	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable	a) 0.088 mg/kg b) 0.090 mg/kg c) 2.542 mg/kg d) 1.212 mg/kg e) 3.578 mg/kg f) 1.107 mg/kg g) 0.403 mg/kg h) 1.297 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Firebaugh c) At Freemont Ford State Recreational Area d) Near Crow's Landing e) At South County Park f) Salt Slough below Lander Avenue g) Merced River below CA highway h) At George J. Hatfield State Recreational Area Organochlorine levels generally increased downstream, irrigated agriculture areas. July, 1981. Detection limit 0.004 mg/kg. California, San Joaquin Valley GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; PESTICIDES; INDUSTRIAL CHEMICALS; CALIFORNIA; CHLORDANE; DDD; DDE; DDT; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; WATER POLLUTION; INSECTICIDES; HERBICIDES; BODY
Saiki, M.K.; Schmitt, C.J. 1986 Archives of Environmental Contamination and Toxicology 15:357-366

Tissue	Cases Exposure Route	Range	Mean	General Information
12999 Liver	1	a) Not applicable b) Not applicable	a) 13 mg/kg b) <0.1 mg/kg Lipid basis	a) Cis-isomer b) Trans-isomer Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Tissue	Cases Exposure Route	Range	Mean	General Information
13000 Muscle	2	Not given	36.384+/-16.044 ug/g fat	From samples with mean of 3.67% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

57-74-9
C10-H6-Cl8
MW 409.8

Catfish
ANARHICHAS LUPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13001 Liver	2	3-14 ug/kg Wet wt	9+/-8 ug/kg Wet wt	Collected in Sogndalsfjord in 1982. Western Norway GC-EC
LIVER; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; NORWAY; DDT; DDD; DDE; OXYCHLORDANE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; PESTICIDES; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION Skare, J.U.; Stenersen, J.; Kveseth, N.; Polder, A. 1985 Archives of Environmental Contamination and Toxicology 14:33-41				

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13002 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) 0.064 ppm d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC
13003 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13004 Adipose		0.007-0.267 ppm Fat basis	0.068 ppm Fat basis	Samples purchased from Baghdad meat markets in 1983. Sum of cis and trans isomers. Iraq GC

ADIPOSE TISSUE; CATTLE; SHEEP; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; IRAQ; HEPTACHLOR; DIELDRIN; DDT; LINDANE; BIOACCUMULATION
Al-Omar, M.; Al-Bassomy, M.; Al-Ogaily, N.; Al-Din Shebl, D. 1985 Bulletin of Environmental Contamination and Toxicology 34:509-512

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13005 Adipose	a) 95 b) 81 c) 49 d) 30 e) 102 f) 180	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not measured b) Not measured c) Not measured d) 22+/-20 ug/kg e) 1.0+/-1.0 ug/kg f) 4.6+/-10.0 ug/kg	a) 1969-70, 19 composite samples b) 1971-72, 21 composite samples c) 1973-74, 17 composite samples d) 1975-76, 9 composite samples e) 1979-80, 21 composite samples f) 1981-82, 50 composite samples Abdominal fat. Canada, Ontario GC; GC-EC
13006 Eggs	a) 120 b) 124 c) 64 d) 10 e) 101	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Not measured b) Not measured c) Not measured d) <1 ug/kg e) <1 ug/kg	a) 1969-70, 30 composite samples b) 1971-72, 31 composite samples c) 1973-74, 22 composite samples d) 1975-76, 4 composite samples e) 1979-80, 31 composite samples Fat. Canada, Ontario GC; GC-EC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; ADIPOSE TISSUE; EGGS; CHICKENS; CANADA; FOOD CONTAMINATION; CHLORINE ORGANIC COMPOUNDS; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; CHLORDANE; LINDANE; POLYCHLORINATED BIPHENYLS; BIRDS
Frank, R.; Rasper, J.; Braun, H.E.; Ashton, G. 1985 Journal of the Association of Official Analytical Chemists 68(1):124-129

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8
Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
13007 Liver	18	38-220 ug/kg Wet wt	91+/-51 ug/kg Wet wt	Collected in Sogndalsfjord in 1982. Western Norway GC-EC
LIVER; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; NORWAY; DDT; DDD; DDE; OXYCHLORDANE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; PESTICIDES; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION Skare, J.U.; Stenersen, J.; Kveseth, N.; Polder, A. 1985 Archives of Environmental Contamination and Toxicology 14:33-41				

Cormorant, olivaceous
PHALACROCORAX OLIVACEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13008 Carcass	a) 2 b) 4	a) Not given b) 0.1-0.6 ppm Wet wt	a) 0.1 ppm b) Not given Wet wt	a) 1980 b) 1981 Shot with steel shot at Atkinson Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Texas, Galveston Bay CC; GLC-EC
13009 Eggs	a) 13 b) 18	a) 0.1-0.9 ppm b) 0.1-0.8 ppm Wet wt	a) Not given b) Not given	a) 1980. Detected in 6/13 b) 1981. Detected in 5/18 Collected from nests early each nesting season. Texas, Galveston Bay CC; GLC-EC
BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

57-74-9
C10-H6-Cl8
MW 409.8

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13010 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Crayfish
PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
13011 Body, whole	50	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) 0.046 ppm c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 10 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
13012 Body, whole		<0.5-2,680 ppb	Not given	Composite sample from 22 watersheds near Great Lakes, 1978. Total of 26 samples collected, included 138 individuals: walleye, carp, white sucker, channel catfish, freshwater drum, quillback, stone roller, goldfish, brown trout, hog sucker, coho salmon. Detection limit 0.5 ppb. US EPA Region V: Minnestota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, New York MID GLC/MS

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; MINNESOTA; WISCONSIN; MICHIGAN; OHIO; INDIANA; PENNSYLVANIA; NEW YORK; DDT; DDE; POLYCHLORINATED BIPHENYLS; HEPTACHLOR; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; OXYCHLORDANE; CHLORDANE; NONACHLOR

Veith, G.D.; Kuehl, D.W.; Leonard, E.N.; Welch, K.; Pratt, G. 1981 Pesticides Monitoring Journal 15(1):1-8

Tissue	Cases Exposure Route	Range	Mean	General Information
13013 Muscle	a) 140 b) 14 c) 15 d) 98 e) 24	a) Not detected-0.37 ug/g b) 0.01-0.26 ug/g c) Not detected-0.34 ug/g d) Not detected-0.70 ug/g e) 0.004-0.31 ug/g	a) 0.10 ug/g b) 0.07 ug/g c) 0.08 ug/g d) 0.08 ug/g e) 0.12 ug/g	a) Collected 1976 b) 1977 c) 1978 d) 1979 e) 1980 Collected in Maryland waters. Part of study identifying and quantifying organochlorine residues in samples from various regions of the bay. Detection limit 0.001 ug/g. Values below established action level. Maryland, Chesapeake Bay and tributaries GC-EC

ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING

Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742

Fish (A. spinifer)
ARGYROPS SPINIFER

Tissue	Cases Exposure Route	Range	Mean	General Information
13014 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 5.57 ug/kg b) 108.14 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC

MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES

El-Dib, M.A., Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

57-74-9
C10-H6-Cl8
MW 409.8

Fish (A. vorax)
ASPIUS VORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
13015 Muscle	2	Not given	41.521+/-8.461 ug/g fat	From samples with mean of 1.76% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (B. belaweyi)
BARBUS BELAWEYI

Tissue	Cases Exposure Route	Range	Mean	General Information
13016 Muscle	4	Not given	46.532+/-11.395 ug/g fat	From samples with mean of 1.36% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (B. grypus)
BARBUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13017 Muscle	11	a) Not given b) Not given	a) 10.478+/-6.443 ug/g b) 20.892+/-10.601 ug/g Fat basis	a) From samples with >2% fat (mean 3.03%), older animals b) <2% fat (mean 0.89%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

57-74-9
C10-H6-Cl8
MW 409.8

Fish (B. luteus)
BARBUS LUTEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13018 Muscle	6	a) Not given b) Not given	a) 16.550 ug/g b) 27.516+/-12.201 ug/g Fat basis	a) From samples with >2% fat (mean 2.10%), older animals b) <2% fat (mean 0.60%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (B. xanthopterus)
BARBUS XANTHOPTERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13019 Muscle	6	a) Not given b) Not given	a) 13.462+/-4.191 ug/g b) 73.495+/-40.272 ug/g Fat basis	a) From samples with >2% fat (mean 3.05%), older animals b) <2% fat (mean 1.44%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (C. regius)
CHONDROSTOMA REGIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13020 Muscle	19	a) Not given b) Not given	a) 20.432+/-16.212 ug/g b) 44.465+/-38.354 ug/g Fat basis	a) From samples with >2% fat (mean 3.84%), older animals b) <2% fat (mean 1.06%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8

Fish (G. ruffa)
GARRA RUFFA

Tissue	Cases Exposure Route	Range	Mean	General Information
13021 Muscle	2	Not given	5.975+/-1.376 ug/g fat	From samples with mean of 4.25% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (H. fossilis)
HETEROPNEUSTES FOSSILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13022 Muscle	3	a) Not given b) Not given	a) 68.816 ug/g b) 57.657 ug/g Fat basis	a) From samples with >2% fat (mean 2.58%), older animals b) <2% fat (mean 1.80%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

Fish (L. abu)
LIZA ABU

Tissue	Cases Exposure Route	Range	Mean	General Information
13023 Muscle	11	a) Not given b) Not given	a) 21.889+/-7.590 ug/g b) 29.982+/-19.983 ug/g Fat basis	a) From samples with >2% fat (mean 2.40%), older animals b) <2% fat (mean 0.94%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 Cl); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)

57-74-9
C10-H6-Cl8
MW 409.8

Fish (M. pelusius)
MYSTUS PELUSIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13024 *Muscle*	4	Not given	25.451+/-6.851 ug/g fat	From samples with mean of 0.47% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (S. auratus)
SPARUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13025 *Muscle*	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 28.17 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC

MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES

El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227

Fish (S. aurita)
SARDINELLA AURITA

Tissue	Cases Exposure Route	Range	Mean	General Information
13026 *Muscle*	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 1.69 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC

MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES

El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8

Fish (S. vulgaris)
SOLEA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13027 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 5.6 ug/kg b) 39.19 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish (Saurida sp.)
SAURIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13028 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 31.14 ug/kg c) 0.1 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

Fish (Trichurus sp.)
TRICHURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13029 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.1 ug/kg b) 108.73 ug/kg c) 3.9 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.15 ug/kg. Egypt GLC
MUSCLES; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; EGYPT; HEXACHLOROBENZENE; LINDANE; ALDRIN; DDE; DDD; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; INDUSTRIAL POLLUTION; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS; INSECTICIDES El-Dib, M.A.; Badawy, M.I. 1985 Bulletin of Environmental Contamination and Toxicology 34:216-227				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

57-74-9
C10-H6-Cl8
MW 409.8

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
13030 Liver	1	a) Not applicable b) Not applicable	a) 250 mg/kg b) 80 mg/kg Lipid basis	a) Cis-isomer b) *Trans-isomer* Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; *HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS;* PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
13031 Liver	1	a) Not applicable b) Not applicable	a) <0.1 mg/kg b) <0.1 mg/kg Lipid basis	a) Cis-isomer b) Trans-isomer Collected from local fish market in Porto Santo, East of Madeira. Surface water habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
13032 Liver	1	a) Not applicable b) Not applicable	a) 3 mg/kg b) <0.1 mg/kg Lipid basis	a) Cis-isomer b) Trans-isomer Collected off Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC
LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (9 Cl)
57-74-9
C10-H6-Cl8
MW 409.8
Flounder
PLATICHTHYS FLESUS

Tissue	Cases / Exposure Route	Range	Mean	General Information
13033 Liver	10	Not detected-8 ug/kg Wet wt	4+/-4 ug/kg Wet wt	Collected in Sognalsfjord in 1982. Limit of detection 1 ug/kg wet wt. Western Norway GC-EC
LIVER; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; NORWAY; DDT; DDD; DDE; OXYCHLORDANE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; PESTICIDES; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION Skare, J.U.; Stenersen, J.; Kveseth, N.; Polder, A. 1985 Archives of Environmental Contamination and Toxicology 14:33-41				

Frog
RANA sp.

Tissue	Cases / Exposure Route	Range	Mean	General Information
13034 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC
13035 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Hacskaylo, J.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 Cl); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)

57-74-9
C10-H6-Cl8
MW 409.8

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13036 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.11 ppm b) 0.23 ppm c) 0.16 ppm d) 0.19 ppm e) 0.14 ppm f) 0.13 ppm Wet wt	a) Kent Island, Bay of Fundy b) Agawa Rock, Lake Superior c) Chantry Island, Lake Huron d) Presqu'ile, Lake Ontario e) Channel-Shelter Island, Saginaw Bay f) Fighting Island, Detroit River Pooled homogenates from 15-25 eggs. Collected 1981. Great Lakes, Atlantic Ocean GC

ENVIRONMENTAL EXPOSURE; AQUATIC; EGGS; GREAT LAKES; WATER POLLUTION; PESTICIDES; BIRDS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; DIELDRIN; OXYCHLORDANE

Ellenton, J.A.; Brownlee, L.J.; Hollebone, B.R. 1985 Environmental Toxicology and Chemistry 4:615-622

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
13037 Carcass	a) 5 b) 5	a) 0.1-1.2 ppm b) 0.2-0.7 ppm Wet wt	a) 0.27 ppm b) 0.31 ppm Wet wt Geometric mean	a) 1980 b) 1981 Shot with steel shot at Atkinson Island, Little Pelican Island, and South Deer Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Mean for a) is geometric. Texas, Galveston Bay CC; GLC-EC
13038 Eggs	a) 20 b) 20	a) 0.2-0.5 ppm b) Not given Wet wt	a) Not given b) 0.6 ppm Wet wt	a) 1980. Detected in 3/20 b) 1981. Detected in 1/20 Collected from nests early each nesting season. Texas, Galveston Bay CC; GLC-EC

BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY

King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 Cl); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)
57-74-9
C10-H6-Cl8
MW 409.8
Haddock
MELANOGRAMMUS AEGLEFINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13039 Liver	7	18-58 ug/kg Wet wt	36+/-18 ug/kg Wet wt	Collected in Sognalsfjord in 1982. Western Norway GC-EC

LIVER; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; NORWAY; DDT; DDD; DDE; OXYCHLORDANE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; PESTICIDES; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION
Skare, J.U.; Stenersen, J.; Kveseth, N.; Polder, A. 1985 Archives of Environmental Contamination and Toxicology 14:33-41

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
13040 Eggs	a) 10 b) 10 c) 10	a) Not detected-0.88 ppm b) Not detected c) 0.07 ppm Wet wt	a) 0.14 ppm b) Not detected c) Not detected-0.36 ppm Geometric Wet wt	a) Controls, Corpus Christi, TX b) Loving, NM c) Artesia, NM Collected 6, 7/83. Part of study to determine extent of residues in selected wildlife and source of contamination. Detection limit 0.1 ppm. Texas; New Mexico GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; REPTILES; WATERFOWL; BATS; DDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; TEXAS; NEW MEXICO; CARCASS; EGGS
White, D.H.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:149-157

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
13041 Body, whole	10	a) Not applicable b) Not given c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haegisoop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13042 Body				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf				

Perch, white
MORONE AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
13043 Eggs	1	Not applicable	0.24 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Maryland, Chesapeake Bay and tributaries GC-EC
13044 Muscle	1	Not applicable	0.30 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Maryland, Chesapeake Bay and tributaries GC-EC
ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8

Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
13045 Eggs	2	0.92-1.15 ug/g	1.035 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC
13046 Muscle	2	0.05-0.09 ug/g	0.07 ug/g	Collected Patapsco River, spring, 1976. Part of study identifying and quantifying organochlorine residues from various regions of the bay. Detection limit 0.001 ug/g. Value below established action level. Mean calculated by extractor. Maryland, Chesapeake Bay and tributaries GC-EC

ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; MUSCLES; EGGS; GONADS; DDT; DDE; DDD; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; WATER POLLUTION; BIOLOGICAL MONITORING; TREND MONITORING
Eisenberg, M; Topping, J.J. 1985 Journal of Environmental Science and Health B20(6):729-742

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13047 Liver	1	a) Not applicable b) Not applicable	a) 14 mg/kg b) 14 mg/kg Lipid basis	a) Cis-isomer b) Trans-isomer Collected at Lake Sete Cidades in Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 Cl); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)

57-74-9
C10-H6-Cl8
MW 409.8

Raccoon
PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
13048 Muscle	10	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not given f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.034 ppm f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Scorpion, sea
MYOXOCEPHALUS SCORPIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13049 Liver	6	6-28 ug/kg Wet wt	15+/-8 ug/kg Wet wt	Collected in Sogndalsfjord in 1982. Limit of detection 1 ug/kg wet wt. Western Norway GC-EC
LIVER; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; NORWAY; DDT; DDD; DDE; OXYCHLORDANE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; PESTICIDES; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION Skare, J.U., Stenersen, J.; Kveseth, N.; Polder, A. 1985 Archives of Environmental Contamination and Toxicology 14:33-41				

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8
Shad
DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13050 Body, whole	25	a) Not given b) Not applicable c) Not given d) Not applicable e) Not given f) Not applicable	a) 0.122 ppm b) Not detected c) 0.158 ppm d) Not detected e) 0.022 ppm f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Means c) and e) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13051 Adipose		0.032-0.606 ppm Fat basis	0.126 ppm Fat basis	Samples purchased from Baghdad meat markets in 1983. Sum of cis and trans isomers. Iraq GC

ADIPOSE TISSUE; CATTLE; SHEEP; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; IRAQ; HEPTACHLOR; DIELDRIN; DDT; LINDANE; BIOACCUMULATION
Al-Omar, M.; Al-Bassomy, M.; Al-Ogaily, N.; Al-Din Shebl, D. 1985 Bulletin of Environmental Contamination and Toxicology 34:509-512

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8
Skimmer, black
RHYNCHOPS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
13052 *Carcass*	a) 7 b) 4 c) 2	a) 0.1-0.7 ppm b) 0.1-1.0 ppm c) 0.1-0.2 ppm Wet wt	a) 0.27 ppm b) Not given c) Not given Wet wt *Geometric mean*	a) 1980 b) 1981 c) 1982 Shot with steel shot at Atkinson Island, Little Pelican island, and near Swan Lake. Carcasses analyzed did not include skin, bills, feet, gastrintestinal tracts, livers, or kidneys. Texas, Galveston Bay CC; GLC-EC
13053 Eggs	a) 20 b) 20 c) 20	a) 0.1-0.4 ppm b) 0.1-0.4 ppm c) Not given Wet wt	a) 0.22 ppm b) Not given c) 0.1 ppm Wet wt	a) 1980. Detected in 10/20 b) 1981. Detected in 6/20 c) 1982. Detected in 2/20 Collected from nests early each nesting season. Geometric mean. Texas, Galveston Bay CC; GLC-EC

BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY

King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376

Snake, water
NATRIX sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13054 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) Not detected	a) Lake Verret b) Plaquemine-Brule Bayou c) East Franklin Site of collection in 1979. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Includes alpha and gamma isomers. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
57-74-9
C10-H6-Cl8
MW 409.8

Sole, lemon
MICROSTOMAS KITT

Tissue	Cases Exposure Route	Range	Mean	General Information
13055 Liver	10	Not detected-14 ug/kg Wet wt	7+/-6 ug/kg Wet wt	Collected in Sogndalsfjord in 1982. Limit of detection 1 ug/kg wet wt. Western Norway GC-EC

LIVER; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; NORWAY; DDT; DDD; DDE; OXYCHLORDANE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; PESTICIDES; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION
Skare, J.U.; Stenersen, J.; Kveseth, N.; Polder, A. 1985 Archives of Environmental Contamination and Toxicology 14:33-41

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
13056 Body	10	a) Not given b) Not given	a) 38+/-23 ng/g b) 1.3+/-0.3 ng/g	a) Alpha-chlordane b) Gamma-chlordane Comparison of laboratory- and field-derived bioconcentration factors (BCFs) for 34 chemicals showed predictions based on lab BCFs useful for chemicals with short half-lives but too low for long half-life chemicals where contaminated food is major source. Lake Ontario, Ganaraska River CC; EC

FISHES; ENVIRONMENTAL EXPOSURE; BIOCONCENTRATION; CHLORINE ORGANIC COMPOUNDS; PESTICIDE RESIDUES; WATER POLLUTION; POLYCHLORINATED BIPHENYLS
Oliver, B.G.; Niimi, A.J. 1985 Environmental Science and Technology 19:842-849

Wrasse, ballan
LABRUS BERGGYLTA

Tissue	Cases Exposure Route	Range	Mean	General Information
13057 Liver	a) 10 b) 10	Not detectable-18 ug/kg Wet wt	10+/-7 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalsfjord. Limit of detection 1 ug/kg wet wt. Western Norway GC-EC

LIVER; ENVIRONMENTAL EXPOSURE; FISHES; AQUATIC; NORWAY; DDT; DDD; DDE; OXYCHLORDANE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; PESTICIDES; BIOACCUMULATION; PESTICIDE RESIDUES; WATER POLLUTION
Skare, J.U.; Stenersen, J.; Kveseth, N.; Polder, A. 1985 Archives of Environmental Contamination and Toxicology 14:33-41

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
13058 Body, whole	132	0-18 ug/kg Wet wt	7 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 *Pesticides Monitoring* Journal 15(3):117-122				

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13059 Body		Not applicable	0.01 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
13060 Brain				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico
13061 Carcass				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico

(next page)

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C
Bat

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13062 *Milk*				Review. Part of extensive coverage of organochlorines and metals found in surveys and some experimental feeding studies. 25 species in 5 countries were surveyed. USA: Nigeria; England; Australia; Mexico

ENVIRONMENTAL EXPOSURE; REVIEW; DELIBERATE EXPOSURE: TERRESTRIAL; BATS; CARCASS; BODY; LIVER; ADIPOSE TISSUE; BRAIN; GASTROINTESTINAL SYSTEM; MAMMARY GLANDS; MILK; HEART; LUNGS; KIDNEYS; SKIN; MUSCLES; HAIR; PESTICIDES; PESTICIDE RESIDUES; INSECTICIDES; DDT; DDD; DDE; DIELDRIN; LINDANE; POLYCHLORINATED BIPHENYLS; MIREX; HEPTACHLOR EPOXIDE; OXYCHLORDANE; SELENIUM; MERCURY; LEAD; METALS
Clark, D.R. 1981 U.S. Department of the Interior, Special Scientific Report - Wildlife No. 235, 27 pp.

Blackbird, Brewer's
EUPHAGUS CYANOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13063 Carcass	a) 25 b) 79	a) Not detected-0.15 ppm b) Not detected-0.29 ppm Wet wt	a) 0.01+/-0.01 ppm b) 0.03+/-0.03 ppm S.E. Wet wt Arithmetic	a) Detected in 1/25 individuals b) Detected in 1/9 composite samples. Migratory omnivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Colorado; Utah; Wyoming; Idaho; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Blackbird, red-winged
AGELAIUS PHOENICEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13064 Carcass	44	Not detected-0.36 ppm Wet wt	0.07+/-0.07 ppm S.E. Wet wt Arithmetic	Detected in 1 of 5 composite samples. Nonmigratory omnivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Colorado; Utah; Idaho; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13065 Body		Not applicable	<0.005 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13066 Body		Not applicable	0.023 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13067 Body		Not applicable	<0.005 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13068 Body		Not applicable	<0.005 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
13069 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) <0.005 mg/kg b) 0.19 mg/kg c) 0.40 mg/kg d) 0.005 mg/kg e) 0.08 mg/kg f) 0.003 mg/kg g) 0.09 mg/kg h) 0.01 mg/kg i) 0.20 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems.

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
13070 Body, whole	536	0-23 ug/kg Wet wt	5.3 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES

Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Carpsucker, river
CARPIODES CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
13071 Body, whole	302	0-42 ug/kg Wet wt	8 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122				

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13072 Body, whole	86	6-42 ug/kg Wet wt	13 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13073 Adipose	a) 95 b) 81 c) 49 d) 30 e) 102 f) 180	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) <1 u/gkg b) <1 ug/kg c) 14+/-44 ug/kg d) 6+/-18 ug/kg e) 1.1+/-0.2 ug/kg f) 4.6+/-2.5 ug/kg	a) 1969-70, 19 composite samples b) 1971-72, 21 composite samples c) 1973-74, 17 composite samples d) 1975-76, 9 composite samples e) 1979-80, 21 composite samples f) 1981-82, 50 composite samples Abdominal fat. Canada, Ontario GC; GC-EC
13074 Eggs	a) 120 b) 124 c) 64 d) 10 e) 101	a) Not given b) Not given c) Not given d) Not given e) Not given	a) <1 ug/kg b) <1 ug/kg c) <1 ug/kg d) 1.5+/-1.0 ug/kg e) <1 ug/kg	a) 1969-70, 30 composite samples b) 1971-72, 31 composite samples c) 1973-74, 22 composite samples d) 1975-76, 4 composite samples e) 1979-80, 31 composite samples Fat. Canada, Ontario GC; GC-EC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; ADIPOSE TISSUE; EGGS; CHICKENS; CANADA; FOOD CONTAMINATION; CHLORINE ORGANIC COMPOUNDS; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; CHLORDANE; LINDANE; POLYCHLORINATED BIPHENYLS; BIRDS
Frank, R.; Rasper, J.; Braun, H.E.; Ashton, G. 1985 Journal of the Association of Official Analytical Chemists 68(1):124-129

Cormorant, olivaceous
PHALACROCORAX OLIVACEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13075 Carcass	a) 3 b) 1	a) Not given b) Not given	a) 0.1 ppm b) 0.2 ppm Wet wt	a) 1980 b) 1981 Shot with steel shot at Atkinson Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Texas, Galveston Bay CC; GLC-EC
13076 Eggs	a) 13 b) 18	a) 0.1-0.2 ppm b) Not given Wet wt	a) Not given b) 0.1 ppm Wet wt	a) 1980. Detected in 3/13 b) 1981. Detected in 1/18 Collected from nests early each nesting season. Texas, Galveston Bay CC; GLC-EC

BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY
King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13077 Body		Not applicable	0.02 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Crappie, white
POMOXIS ANNULARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13078 Body, whole	217	3-19 ug/kg Wet wt	6 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES

Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122

Crow, American
CORVUS BRACHYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
13079 Brain	1	Not applicable	16.0 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1979. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES, PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN

Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Dove, mourning
ZENAIDA MACROURA

Tissue	Cases Exposure Route	Range	Mean	General Information
13080 Carcass	70	Not detected-3.08 ppm Wet wt	0.44+/-0.44 ppm S.E. Wet wt Arithmetic	Detected in 1 of 7 composite samples. Migratory granivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Idaho; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
13081 Bile	4 Injection	Not given	a) 12.8+/-1.1% b) 26.2+/-3.0 S.E.	a) Percentage of 15 mg/kg IP dose of [14-C]-heptachlor epoxide (HCE) excreted within 7 hr by colostromized feral birds (wt 350-480 g) b) Excreted within 24 hr Metabolites were predominantly sulfate conjugates of monohydroxy epoxide (HHC), with endo-HHC and dihydroxy-HCE as secondary metabolites. TLC

METABOLITES; HEPTACHLOR EPOXIDE; DELIBERATE EXPOSURE; URINE; BILE; BIRDS; PIGEONS; TERRESTRIAL; METABOLISM; PESTICIDES
Chipman, J.K.; Walker, C.H. 1981 Archives of Environmental Contamination and Toxicology 10:755-764

Tissue	Cases Exposure Route	Range	Mean	General Information
13082 Carcass	16	Not detected-0.08 ppm Wet wt	0.03+/-0.03 ppm S.E. Wet wt Arithmetic	Detected in 1 of 3 composite samples. Nonmigratory granivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Idaho; Oregon GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
13083 Urine	8	Not given	16.2+/-2.9% S.E.	a) Percentage of 15 mg/kg IP dose of [14-C]-heptachlor epoxide (HCE) excreted within 7 hr by re-entrant bile duct cannulated feral birds (wt 350-480 g). Bile was not collected from the relatively small right duct. Metabolites were predominantly glucuronic acid conjugates of monohydroxy epoxide (HHC), with endo-HHC and dihydroxy-HCE as secondary met TLC
METABOLITES; HEPTACHLOR EPOXIDE; DELIBERATE EXPOSURE; URINE; BILE; BIRDS; PIGEONS; TERRESTRIAL; METABOLISM; PESTICIDES Chipman, J.K.; Walker, C.H. 1981 Archives of Environmental Contamination and Toxicology 10:755-764				

Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
13084 Wing				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf				

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
13085 Eggs	a) 3 b) 10	a) 0.17-0.58 ug/g b) Not detected-13.60 ug/g Wet wt	a) 0.29 ug/g b) Not given Geometric Wet wt	a) 1978, 3 positive b) 1979, 4 positive Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3

C10-H5-Cl7-O

MW 389.40, MF 160-161.5 C

Duck, mallard

ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
13086 Wing				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS

Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

Eagle, bald

HALIAEETUS LEUCOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13087 Body				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS

Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf

Egret, cattle

BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13088 Brain	a) 2 b) 1 c) 3	a) 0.19-0.54 ppm b) Not detected c) Not detected Wet wt	a) 0.37 ppm b) Not detected c) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 5/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC

(next page)

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Egret, cattle
BUBULCUS IBIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13089 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected-0.65 b) Not detected c) Not detected d) Not detected Wet wt	a) Not applicable b) Not detected c) Not detected d) Not detected	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13090 Brain	a) 4 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
13091 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3

C10-H5-Cl7-O

MW 389.40, MP 160-161.5 C

Egret, snowy

EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
13092 Brain	1	Not detected	Not detected	Dead chick, 6/77. Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
13093 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
13094 Body, whole		<0.5-5 ppb	Not given	Composite sample from 22 watersheds near Great Lakes, 1978. Total of 26 samples collected, included 138 individuals: walleye, carp, white sucker, channel catfish, freshwater drum, quillback, stone roller, goldfish, brown trout, hog sucker, coho salmon. Detection limit 0.5 ppb. US EPA Region V: Minnestota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, New York MID GLC/MS

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; MINNESOTA; WISCONSIN; MICHIGAN; OHIO; INDIANA; PENNSYLVANIA; NEW YORK; DDT; DDE; POLYCHLORINATED BIPHENYLS; HEPTACHLOR; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; OXYCHLORDANE; CHLORDANE; NONACHLOR

Veith, G.D.; Kuehl, D.W.; Leonard, E.N.; Welch, K.; Pratt, G. 1981 Pesticides Monitoring Journal 15(1):1-8

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Goshawk
ACCIPITER GENTILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13095 Liver	7	Not applicable	1.50 ppm Wet wt	Collected 1972-73, 14.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13096 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.31 ppm b) 0.13 ppm c) 0.12 ppm d) 0.10 ppm e) 0.09 ppm Wet wt	a) Agawa Rock, Lake Superior b) Chantry Island, Lake Huron c) Presqu'ile, Lake Ontario d) Channel-Shelter Island, Saginaw Bay e) Fighting Island, Detroit River Pooled homogenates from 15-25 eggs. Collected 1981. Great Lakes GC
ENVIRONMENTAL EXPOSURE; AQUATIC; EGGS; GREAT LAKES; WATER POLLUTION; PESTICIDES; BIRDS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; DIELDRIN; OXYCHLORDANE Ellenton, J.A.; Brownlee, L.J.; Hollebone, B.R. 1985 Environmental Toxicology and Chemistry 4:615-622				

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
13097 Carcass	a) 2 b) 1	a) 0.1-0.2 ppm b) Not given Wet wt	a) Not given b) 0.1 ppm Wet wt	a) 1980 b) 1981 Shot with steel shot at Atkinson Island, Little Pelican Island, and South Deer Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. Mean for a) is geometric. Texas, Galveston Bay GC; GLC-EC

(next page)

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Gull, laughing
LARUS ATRICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13098 Eggs	a) 20 b) 20	a) 0.2-0.5 ppm b) Not detected Wet wt	a) Not given b) Not detected	a) 1980. Detected in 3/20 b) 1981 Detection limit 0.1 ppm wet wt. Texas, Galveston Bay CC; GLC-EC

BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY
King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376

Gull, ring-billed
LARUS DELAWARENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13099 Brain	2	0.4-3.6 ug/g Wet wt	2.0 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1980-1980. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Hare
LEPUS EROPAUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13100 Adipose	26	Not given	3.595 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use prohibited since 1980. Detectable levels in 24 of 26. Germany, West GC
13101 Muscle	26	Not given	0.009 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use prohibited since 1980. Detectable levels in 24 of 26. Germany, West GC

ADIPOSE TISSUE; MUSCLES; BIRDS; TERRESTRIAL; RABBITS; ENVIRONMENTAL EXPOSURE; GERMANY; CHLORINATED HYDROCARBONS; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; LINDANE; HEPTACHLOR EPOXIDE; METABOLITES; DDT; AGRICULTURE; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; LAND POLLUTION; WATER POLLUTION
Brunn, H.; Berlich, H.D.; Muller, F.J. 1985 Bulletin of Environmental Contamination and Toxicology 34:527-532

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Hawk, Cooper's
ACCIPITER COOPERII

Tissue	Cases Exposure Route	Range	Mean	General Information
13102 Muscle	1	Not applicable	0.002 ppm Wet wt	Collected 1973, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Hawk, red-shouldered
BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13103 Adipose	1	Not applicable	1.42 ppm Wet wt	Collected 1967-75, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13104 Muscle	2	Not applicable	0.10 ppm Wet wt	Collected 1967-75, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Hawk, red-tailed
BUTEO JAMAICENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13105 Brain	5	0.0003-0.002 ppm Wet wt	0.001 ppm Wet wt	Collected 1971-78, 40.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13106 Heart	6	Not applicable	0.74 ppm Wet wt	Collected 1971-78, 16.7% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Hawk, red-tailed
BUTEO JAMAICENSIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13107 Liver	6	0.003-0.84 ppm Wet wt	0.42 ppm Wet wt	Collected 1971-78, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13108 Muscle	6	0.004-0.04 ppm Wet wt	0.02 ppm Wet wt	Collected 1971-78, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Hawk, rough-legged
BUTEO LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13109 Brain	2	Not applicable	0.29 ppm Wet wt	Collected 1977-78, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13110 Heart	1	Not applicable	0.04 ppm Wet wt	Collected 1977-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13111 Liver	2	Not applicable	0.05 ppm Wet wt	Collected 1977-78, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13112 Muscle	2	Not applicable	0.001 ppm Wet wt	Collected 1977-78, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

4,7-*Methanoindan*, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
13113 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Wisconsin, adult, 7/87 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
13114 Carcass	a) 1 b) 3 c) 5 d) 1 f) 3 g) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable f) Not detected-0.22 ppm g) Not detected Wet wt	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.40 ppm f) Not applicable g) Not detected Wet wt	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR, PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; *PESTICIDE RESIDUES*

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
13115 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-0.36 ppm b) Not detected-0.63 ppm c) Not detected-0.26 ppm d) Not applicable e) Not applicable f) Not detected g) Not detected-1.9 ppm h) Not detected-1.5 ppm *Wet wt*	a) Not applicable b) Not applicable c) Not applicable d) 0.20 ppm e) 0.30 ppm f) Not detected g) Not applicable h) Not applicable *Wet wt*	a) Maryland, adult and fledged *immatures*, 6/70-8/73 b) Virginia, adults, possible dieldrin *poisoning* (2 birds), 1970-5/74 c) Florida, adults and fledged immature, *possible* dieldrin poisoning (1 bird), 2/73 d) North Carolina, *adult*, DDT poisoning, 2/76 e) Illinois, adult, dieldrin *poisoning*, 6/77 f) Michigan, adult and fledged *immatures* shot 8/73 g) *Minnesota*, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 12/76-5/79 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-5/79 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. *GLC*
13116 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected-0.53 ppm c) Not detected-0.48 ppm d) Not detected-0.30 ppm e) Not applicable f) Not detected g) Not detected-0.80 ppm h) Not applicable *Wet wt*	a) Not detected b) Not applicable c) Not applicable d) Not applicable e) 0.19 ppm f) Not detected g) Not applicable h) 0.28 ppm *Wet wt*	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORI-

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 Cl); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 Cl)

1024-57-3

C10-H5-Cl7-O

MW 389.40, MP 160-161.5 C

Heron, green-backed

BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13117 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Massachusetts, adult, possible paralytic *shellfish poisoning*, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. *GLC*

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, little blue

FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
13118 Carcass	a) 6 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. *GLC*

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, Louisiana

HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
13119 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. *GLC*

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
13120 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13121 Carcass	a) 19 b) 66	a) 0.05-2.19 ppm b) Not detected-0.07 ppm Wet wt	a) 0.18+/-0.11 ppm b) 0.01+/-0.01 ppm S.E. Wet wt Arithmetic	a) Detected in 12/19 individuals b) Detected in 1/7 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah; Oregon; Montana; Colorado GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Magpie, black-billed
PICA PICA

Tissue	Cases Exposure Route	Range	Mean	General Information
13122 Brain	4	4.6-16.0 ug/g Wet wt	11.9 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976-1980. Oregon; Washington GLC

(next page)

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Magpie, black-billed
PICA PICA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13123 Eggs	9	0.26-3.23 ug/g Wet wt	1.02 ug/g Geometric Wet wt	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 9 positive. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 *Science of the Total Environment* 46:73-81				

Meadowlark
STURNELLA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13124 Carcass	81	Not detected-0.05 ppm Wet wt	0.014+/-0.01 ppm S.E. Wet wt Arithmetic	Detected in 1 of 8 composite samples. Nonmigratory omnivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; South Dakota; Wyoming; Idaho; Oregon; Montana GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO, NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13125 Body				Review of organochlorine pollutants in various species from the bay and from coastal and watershed areas. In addition to levels, eggshell thickness discussed. Expect impact of organochlorine pollutants to be less than it has in previous years. Chesapeake Bay
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; DDT; DDD; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; MIREX; KEPONE; POLYCHLORINATED BIPHENYLS; CHLORDANE; NONACHLOR; BRAIN; LIVER; CARCASS; WINGS; BODY; BLOOD; EGGS; MUSCLES; REVIEW; PESTICIDES; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS Ohlendorf, H.M. 1981 Trans 46th North American Wildlife and Natural Resource Conf				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-Indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
13126 Adipose	6	0.80-10.16 ppm Wet wt	5.48 ppm Wet wt	Collected 1966-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13127 Brain	11	0.01-0.41 ppm Wet wt	0.11 ppm Wet wt	Collected 1966-79, 54.6% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13128 Heart	11	0.02-0.09 ppm Wet wt	0.04 ppm Wet wt	Collected 1966-79, 54.6% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13129 Liver	12	0.01-1.40 ppm Wet wt	0.45 ppm Wet wt	Collected 1966-79, 66.7% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13130 Muscle	13	0.01-0.73 ppm Wet wt	0.13 ppm Wet wt	Collected 1966-79, 53.9% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Owl, great horned
BUBO VIRGINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13131 Adipose	4	0.15-3.04 ppm Wet wt	66.7 ppm Wet wt	Collected 1974-81, 66.7% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13132 Brain	14	0.02-1.09 ppm Wet wt	0.50 ppm Wet wt	Collected 1974-81, 35.7% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Owl, great horned
BUBO VIRGINIANUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13133 Heart	15	0.02-0.51 ppm wet wt	0.25 ppm Wet wt	Collected 1974-81, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13134 Liver	16	0.13-0.51 ppm Wet wt	0.32 ppm Wet wt	Collected 1974-81, 12.5% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13135 Muscle	15	0.01-4.00 ppm Wet wt	1.11 ppm Wet wt	Collected 1974-81, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Owl, long-eared
ASIO OTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13136 Brain	4	0.08-0.97 ppm Wet wt	0.52 ppm Wet wt	Collected 1977-79, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13137 Liver	3	Not applicable	0.01 ppm Wet wt	Collected 1977-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13138 Muscle	3	Not applicable	0.11 ppm Wet wt	Collected 1977-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Owl, screech-, Eastern
OTUS ASIO

Tissue	Cases Exposure Route	Range	Mean	General Information
13139 Adipose	4	Not applicable	0.11 ppm Wet wt	Collected 1967-79, 25.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13140 Brain	7	Not applicable	0.42 ppm Wet wt	Collected 1967-79, 14.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13141 Heart	9	0.08-0.54 ppm Wet wt	0.29 ppm Wet wt	Collected 1967-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13142 Liver	10	0.02-0.83 ppm Wet wt	0.44 ppm Wet wt	Collected 1967-79, 40.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
13143 Muscle	8	Not applicable	0.44 ppm Wet wt	Collected 1967-79, 12.5% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

Owl, short-eared
ASIO FLAMMEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13144 Heart	1	Not applicable	0.06 ppm Wet wt	Collected 1975, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; POLYCHLORINATED BIPHENYLS; ILLINOIS; BIOACCUMULATION; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; DDE; DIELDRIN; HEPTACHLOR EPOXIDE; BRAIN; MUSCLES; LIVER; HEART; ADIPOSE TISSUE; PESTICIDES Havera, S.P.; Duzan, R.E. 1986 Bulletin of Environmental Contamination and Toxicology 36:23-32				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Partridge
PERDIX PERDIX

Tissue	Cases Exposure Route	Range	Mean	General Information
13145 Adipose	16	Not given	0.265 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use prohibited since 1980. Detectable levels in 12 of 17. Germany, West GC

ADIPOSE TISSUE; MUSCLES; BIRDS; TERRESTRIAL; RABBITS; ENVIRONMENTAL EXPOSURE; GERMANY; CHLORINATED HYDROCARBONS; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; LINDANE; HEPTACHLOR EPOXIDE; METABOLITES; DDT; AGRICULTURE; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; LAND POLLUTION; WATER POLLUTION

Brunn, H.; Berlich, H.D.; Muller, F.J. 1985 Bulletin of Environmental Contamination and Toxicology 34:527-532

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13146 Adipose	4	Not given	0.543 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use prohibited since 1980. Germany, West GC

ADIPOSE TISSUE; MUSCLES; BIRDS; TERRESTRIAL; RABBITS; ENVIRONMENTAL EXPOSURE; GERMANY; CHLORINATED HYDROCARBONS; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; LINDANE; HEPTACHLOR EPOXIDE; METABOLITES; DDT; AGRICULTURE; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; LAND POLLUTION; WATER POLLUTION

Brunn, H.; Berlich, H.D.; Muller, F.J. 1985 Bulletin of Environmental Contamination and Toxicology 34:527-532

Tissue	Cases Exposure Route	Range	Mean	General Information
13147 Body	5	Not given	Trace	Collected in Washington county, an area identified as high in pesticide use. Kansas

BODY; PHEASANTS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; KANSAS; HEXACHLOROBENZENE; HEPTACHLOR EPOXIDE; DIELDRIN; ANIMAL FEEDS; BIOACCUMULATION; LAND POLLUTION; PESTICIDE RESIDUES; BIOLOGICAL MONITORING

Layher, W.G.; Wood, R.D.; Lambley, D.; Bell, K.O.; Irwin, J.C.; Hammerschmidt, R.F. 1985 Bulletin of Environmental Contamination and Toxicology 34:317-322

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13148 Brain	7	0.11-21.0 ug/g Wet wt	9.0 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976-1980. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Tissue	Cases Exposure Route	Range	Mean	General Information
13149 Eggs	1	Not applicable	0.04 ppm	Collected in alfalfa field 5/80-7/80. Texas, Castro County GC

EGGS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; TEXAS; PESTICIDE RESIDUES; SHELL; BIRDS; DDE
Wallace, B.M.; Warren, R.J.; Taylor, T.T.; Guthery, F.S. 1985 Bulletin of Environmental Contamination and Toxicology 35:505-509

Tissue	Cases Exposure Route	Range	Mean	General Information
13150 Eggs	a) 5 b) 10 c) 2	a) Not detected-8.10 ug/g b) Not detected-5.50 ug/g c) Not detected Wet wt	a) 0.59 ug/g b) Not given c) Not detected Geometric Wet wt	a) 1978, 3 positive b) 1979, 2 positive c) 1980 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-Indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13151 Body		a) Not applicable b) Not applicable	a) <0.005 mg/kg b) 0.48 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Quail, California
CALLIPEPLA CALIFORNICA

Tissue	Cases Exposure Route	Range	Mean	General Information
13152 Brain	1	Not applicable	15.0 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976. Oregon; Washington GLC
13153 Eggs	1	Not applicable	2.95 ug/g Wet wt	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Robin, American
TURDUS MIGRATORIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13154 Carcass	146	Not detected-0.05 ppm Wet wt	<0.01 ppm Wet wt	Detected in 1 of 14 composite samples. Migratory omnivores prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; Utah; South Dakota; Idaho; Oregon; Montana; Wyoming GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
13155 Body, whole	377	7-68 ug/kg Wet wt	15 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES
Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 Pesticides Monitoring Journal 15(3):117-122

Skimmer, black
RHYNCHOPS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
13156 Carcass		a) Not detected b) Not given c) Not detected	a) Not detected b) 0.1 ppm c) Not detected Wet wt	a) 1980 b) 1981 c) 1982 Shot with steel shot at Atkinson Island, Little Pelican island, and near Swan Lake. Carcasses analyzed did not include skin, bills, feet, gastrintestinal tracts, livers, or kidneys. Detection limit 0.1 ppm wet wt. Texas, Galveston Bay CC; GLC-EC

(next page)

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Skimmer, black
RHYNCHOPS NIGER

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13157 Eggs	a) 20 b) 20 c) 20	a) Not given b) Not detected c) Not detected	a) 0.1 ppm b) Not detected c) Not detected Wet wt	a) 1980. Detected in 1/20 b) 1981. Detected in 6/20 c) 1982. Detected in 2/20 Collected from nests early each nesting season. Geometric mean. Texas, Galveston Bay CC; GLC-EC
BIRDS; TEXAS; CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; AQUATIC; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDD; DDE; DIELDRIN; STYRENES; PESTICIDE RESIDUES; WATER POLLUTION; EGGS; BODY King, K.A.; Krynitsky, A.J. 1986 Archives of Environmental Contamination and Toxicology 15:367-376				

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13158 Eggs	19	Not detected-2.34 ug/g Wet wt	0.21 ug/g Geometric *Wet wt*	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 13 positive. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13159 Body		Not applicable	0.02 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. *Great Lakes harbors and tributaries* GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; *POLYCYCLIC AROMATIC HYDROCARBONS*; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
13160 Body		Not applicable	0.05 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Swallow, barn
HIRUNDO RUSTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
13161 Carcass	21	0.06-0.07 ppm Wet wt	0.06+/-0.01 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in both of 2 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Utah GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

Swallow, cliff
HIRUNDO PYRRHONOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
13162 Carcass	133	0.05-0.17 ppm Wet wt	0.02+/-0.01 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in all 3 of 14 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; Utah; Wyoming; Idaho; Oregon; Montana GC-EC

CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; SOUTH DAKOTA; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES
DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
13163 Body	9	0.11-1.3 ppm Wet wt	Not given	*Collected* 6-7/1980-81. Colorado, Boulder Co. and Gilpin Co., Rocky Mountains GLC; EC
BIRDS; ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; CHLORINE ORGANIC COMPOUNDS; DDE; POLYCHLORINATED BIPHENYLS; EGGS; BODY; BRAIN; DDT; HEPTACHLOR EPOXIDE; DIELDRIN; TERRESTRIAL DeWeese, L.R.; Cohen, R.R.; Stafford, C.J. 1985 Bulletin of Environmental Contamination and Toxicology 35:767-775				

Tissue	Cases Exposure Route	Range	Mean	General Information
13164 Carcass	a) 23 b) 14	a) 0.05-0.51 ppm b) Not detected-0.13 ppm Wet wt	a) 0.13+/-0.02 ppm b) 0.06+/-0.06 ppm S.E. Wet wt *Arithmetic*	a) Detected in 19/23 individuals b) Detected in 1/2 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. Colorado; Oregon; Montana GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; *SOUTH DAKOTA*; *COLORADO*; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
13165 Carcass	a) 10 b) 48	a) 0.05-0.46 ppm b) 0.08-0.30 ppm Wet wt	a) 0.12+/-0.06 ppm b) 0.19+/-0.03 ppm S.E. Wet wt Arithmetic	Detected in 4/10 individuals b) Detected in 6/6 composite samples Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Samples excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. New Mexico; Colorado; Idaho; Oregon GC-EC
CHLORINE ORGANIC COMPOUNDS; BIRDS; CARCASS; PESTICIDE RESIDUES; ENVIRONMENTAL EXPOSURE; ADULTS; UTAH; IDAHO; MONTANA; TERRESTRIAL; WYOMING; *SOUTH DAKOTA*; COLORADO; NEW MEXICO; OREGON; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROCYCLOHEXANE; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; COMPARATIVE EVALUATIONS; PESTICIDES DeWeese, L.R.; McEwen, L.C.; Hensler, G.L.; Petersen, B.E. 1986 Environmental Toxicology and Chemistry 5:675-693				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3

C10-H5-Cl7-O

MW 389.40, MP 160-161.5 C

Tern, Forster's

STERNA FORSTERI

Tissue	Cases Exposure Route	Range	Mean	General Information
13166 Eggs	1	Not detected	Not detected	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN

Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Trout, lake

SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
13167 Fillets	3	0.036-0.039 ppm	0.038+/-0.0084 ppm	Included skin. Range, mean are of 9 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan Area of peaks

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION

Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)
1024-57-3
C10-H5-Cl7-O
MW 389.40, MP 160-161.5 C

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
13168 *Adipose*	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.17+/-0.25 ppm b) 0.04+/-0.08 ppm c) Not detected d) Not detected e) 0.38+/-0.60 ppm *Lipid wt*	a) *Males, uncontaminated area of Maryland* b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 25%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
13169 Body		a) Not applicable b) Not applicable c) Not applicable	a) *0.004 mg/kg* b) 0.13 mg/kg c) 0.01 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 *Composite samples.* Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; *INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS;* POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindan, 1,4,5,6,7,8,8-heptachloro-2,3-epoxy-3a,4,7,7a-tetrahydro- (8 CI); 2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aalpha,1bbeta,2alpha,5alpha,5abeta,6beta,6aalpha)- (9 CI)

1024-57-3

C10-H5-Cl7-O

MW 389.40, MP 160-161.5 C

Walleye

STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
13170 Body, whole	40	7-138 ug/kg Wet wt	75 ug/kg Wet wt	Subadults from 3 station, 1) Boone, 73 km upstream from dam, 3) In the reservoir, 3) Saylorville, 3 km downstream from dam. 10/77-10/78. Saylorville reservoir a new impoundment. Iowa, Des Moines River, Saylorville Reservoir GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; DIELDRIN; DDT; HEPTACHLOR EPOXIDE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; FOOD CONTAMINATION; IOWA; INSECTICIDES

Leung, S.-Y.T.; Bulkley, R.V.; Richard, J.J. 1981 *Pesticides Monitoring Journal* 15(3):117-122

Woodcock

SCOLOPAX RUSTICOLA

Tissue	Cases Exposure Route	Range	Mean	General Information
13171 Adipose	8	Not given	0.239 mg/kg	Use prohibited sice 1980. Germany, West GC
13172 Muscle	8	Not given	0.001 mg/kg	Use prohibited sice 1980. Germany, West GC

ADIPOSE TISSUE; MUSCLES; BIRDS; TERRESTRIAL; RABBITS; ENVIRONMENTAL EXPOSURE; GERMANY; CHLORINATED HYDROCARBONS; POLYCHLORINATED BIPHENYLS; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; LINDANE; HEPTACHLOR EPOXIDE; METABOLITES; DDT; AGRICULTURE; ANIMAL POPULATIONS; BIOLOGICAL MONITORING; LAND POLLUTION; WATER POLLUTION

Brunn, H.; Berlich, H.D.; Muller, F.J. 1985 *Bulletin of Environmental Contamination and Toxicology* 34:527-532

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)

5103-73-1
C10-H5-Cl9
MW 444.2

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
13173 *Eggs*	a) 3 b) 10	a) Not detected b) Not detected-0.22 ug/g Wet wt	a) Not detected b) Not given	a) 1978 b) 1979, 3 positive Collected from nests, *Umatilla National Wildlife Refuge*. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; *PESTICIDES*; *PESTICIDE RESIDUES*; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN

Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13174 Brain	a) 2 b) 1 c) 3	a) 0.15-0.54 ppm b) Not detected c) Not detected Wet wt	a) 0.35 ppm b) Not detected c) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 5/78 c) New Mexico, dead chicks, 6/77 *Part of large study of organochlorines* and mortality in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC
13175 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected-0.58 ppm b) Not detected c) Not detected d) Not detected Wet wt	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, *adult shot 7/70* c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)
5103-73-1
C10-H5-Cl9
MW 444.2

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13176 Brain	a) 4 b) 1	a) Not detected b) Not applicable	a) Not detected b) 0.13 ppm Wet wt	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
13177 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.17 ppm Wet wt	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Egret, snowy
EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
13178 Brain	1	Not detected	Not detected	Dead chick, 6/77. Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
13179 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonac hloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)
5103-73-1
C10-H5-Cl9
MW 444.2

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
13180 Body		0.00-0.27 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=6.5 ug/g. Part of National Pesticides Monitoring Program. United States GLC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260				

Grebe, western
AECHMOPHORUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13181 Eggs	12	Not detected-0.16 ppm Wet wt	Not given	Collected 1981. Detected in 2/12. Detection limit 0.1 ppm. California, Tule Lake National Wildlife Refuge GLC
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; EGGS; BODY; BRAIN; DDT; DDE; CALIFORNIA; DIELDRIN; WATERFOWL; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; BIOLOGICAL MONITORING; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; PESTICIDES Boellstorff, D.E.; Ohlendorf, H.M.; Anderson, D.W.; O'Neill, E.J.; Keith, J.O.; Prouty, R.M. 1985 Archives of Environmental Contamination and Toxicology 14:485-493				

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
13182 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected e) Not detected	a) Wisconsin, adult, 8/78 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

(next page)

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)
5103-73-1
C10-H5-Cl9
MW 444.2

Heron, black-crowned night
NYCTICORAX NYCTICORAX

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13183 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable f) Not detected g) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.30 ppm f) Not detected g) Not detected	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
13184 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-0.28 ppm b) Not detected-1.0 ppm c) Not detected-0.38 ppm d) Not applicable e) Not applicable f) Not applicable g) Not detected-0.25 ppm h) 0.04-1.1 ppm Wet wt	a) Not applicable b) Not detected c) Not applicable d) 0.93 ppm e) 0.20 ppm f) 0.10 ppm g) Not applicable h) 0.51 ppm Wet wt	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-5/79 Part of large study of organochlorines and mortality in herons. Means in h) calculated by extractor. Detection limit 0.1 ppm. GLC

(next page)

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 Cl) 4,7-Methano-1H-Indene, 1,2,3,4,5,6,7,8,8-nonac hloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 Cl)

5103-73-1
C10-H5-Cl9
MW 444.2

Heron, great blue
ARDEA HERODIAS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13185 *Carcass*	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected-0.35 ppm c) Not detected-0.50 ppm d) Not detected-0.40 ppm e) Not applicable f) Not detected-0.14 ppm g) Not detected-0.14 ppm h) Not applicable Wet wt	a) Not detected b) Not applicable c) Not applicable d) Not applicable e) 0.14 ppm f) Not applicable g) Not applicable h) 0.28 ppm Wet wt	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, *1970-1/76* d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; *VERMONT; VIRGINIA; WISCONSIN;* ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORI*NATED BIPHENYLS; BIOACCUMULATION;* PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4)·125-135				

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13186 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) *Massachusetts*, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE *ORGANIC COMPOUNDS;* DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)
5103-73-1
C10-H5-Cl9
MW 444.2

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases / Exposure Route	Range	Mean	General Information
13187 Carcass	a) 6 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Oblendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases / Exposure Route	Range	Mean	General Information
13188 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected Wet wt	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Oblendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases / Exposure Route	Range	Mean	General Information
13189 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Oblendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)

5103-73-1
C10-H5-Cl9
MW 444.2

Magpie, black-billed
PICA PICA

Tissue	Cases Exposure Route	Range	Mean	General Information
13190 Eggs	9	Not detected	Not detected	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13191 Brain	3	0.10-0.28 ug/g Wet wt	0.17 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1976-1977. Oregon; Washington GLC
13192 Eggs	a) 5 b) 10 c) 2	a) Not detected-0.11 ug/g b) Not detected-0.17 ug/g c) Not detected Wet wt	a) Not given b) Not given c) Not detected	a) 1978, 2 positive b) 1979, 2 positive c) 1980 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC
ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81				

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonachloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)

5103-73-1
C10-H5-Cl9
MW 444.2

Quail, California
CALLIPEPLA CALIFORNICA

Tissue	Cases Exposure Route	Range	Mean	General Information
13193 Eggs	1	Not detected	Not detected	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13194 Eggs	19	Not detected	Not detected	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Tern, Forster's
STERNA FORSTERI

Tissue	Cases Exposure Route	Range	Mean	General Information
13195 Eggs	1	Not detected	Not detected	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN
Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

4,7-Methanoindan, 1alpha,2alpha,3alpha,4beta,5,6,7beta,8,8-nonachloro-3aalpha,4,7,7-aalpha-tetrahy dro- (8 CI) 4,7-Methano-1H-indene, 1,2,3,4,5,6,7,8,8-nonac hloro-2,3,3a,4,7,7a-hexahydro-(1alpha,2alpha,3alpha,3aalp ha,4beta,7aalpha- (9 CI)
5103-73-1
C10-H5-Cl9
MW 444.2
Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
13196 Fillets	3	0.058-0.071 ppm	0.068+/-0.0039 ppm	Included *skin*. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9				

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
13197 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.59+/-0.71 ppm b) 0.31+/-0.74 ppm c) 3.53+/-7.03 ppm d) 0.64+/-1.10 ppm e) 0.31+/-0.32 ppm Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 59%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland *Lowered lipid content, reduced growth in animals from brackish-water area in* NJ GLC
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; *KIDNEYS*; *ADIPOSE TISSUE*; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; *NICKEL*; *ZINC*; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)

5103-71-9
C10-H6-Cl8
MW 409.76

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
13198 Eggs	10	0.15-0.27 ug/g Wet wt	Not given	1979 Collected from nests, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 3 positive. Oregon; Washington GLC

ENVIRONMENTAL EXPOSURE; BIRDS; WATERFOWL; TERRESTRIAL; AQUATIC; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; INDUSTRIAL POLLUTION; DDE; HEPTACHLOR EPOXIDE; OXYCHLORDANE; NONACHLOR; HEXACHLOROBENZENE; DIELDRIN; ENDRIN; CHLORDANE; POLYCHLORINATED BIPHENYLS; EGGS; BRAIN

Blus, L.J.; Henny, C.J.; Krynitsky, A.J. 1986 Science of the Total Environment 46:73-81

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13199 Brain	a) 2 b) 1 c) 3	a) 0.24-0.74 ppm b) Not detected c) Not detected Wet wt	a) 0.49 ppm b) Not detected c) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Nebraska, adult, possible dieldrin poisoning, 5/78 c) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortality in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC
13200 Carcass	a) 2 b) 1 c) 1 d) 3	a) 0.13-0.80 ppm b) Not detected c) Not detected d) Not detected Wet wt	a) 0.47 ppm b) Not detected c) Not detected d) Not detected Wet wt	a) Maryland, adults, dieldrin poisoning, 6/78 b) Alabama, adult shot 7/70 c) Nebraska, adult, possible dieldrin poisoning, 5/78 d) New Mexico, dead chicks, 6/77 Part of large study of organochlorines and mortaltiy in herons. Mean in a) calculated by extractor. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)

5103-71-9
C10-H6-Cl8
MW 409.76

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13201 Brain	a) 4 b) 1	a) Not detected-0.51 ppm b) Not applicable Wet wt	a) Not applicable b) 0.28 ppm Wet wt	a) Minnesota, adults and chicks, 6/75-6/76 b) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
13202 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected e) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) 0.56 ppm Wet wt	a) Maryland, 6/69 b) Louisiana, fledged immatures, 7/71 c) Michigan, adult shot 5/70 d) Minnesota, adults and chicks, 6/75-6/76 e) California, adult, 7/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Egret, snowy
EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
13203 Brain	1	Not detected	Not detected	Dead chick, 6/77 part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. New Mexico GLC
13204 Carcass	a) 6 b) 1 c) 1 d) 1	a) Not detected b) Not detected c) Not detected d) Not detected	a) Not detected b) Not detected c) Not detected d) Not detected	a) Maryland, chicks, 6/69 b) Alabama, fledged immature shot 7/70 c) Louisiana, fledged immature, 7/71 d) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)

5103-71-9
C10-H6-Cl8
MW 409.76

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
13205 Body		0.00-0.36 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=5.1 ug/g. Part of National Pesticides Monitoring Program. United States GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING
Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260

Grebe, western
AECHMOPHORUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13206 Eggs	12	Not detected-0.10 ppm Wet wt	Not given	Collected 1981. Detected in 2/12. Detection limit 0.1 ppm. California, Tule Lake National Wildlife Refuge GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; EGGS; BODY; BRAIN; DDT; DDE; CALIFORNIA; DIELDRIN; WATERFOWL; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; BIOLOGICAL MONITORING; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; PESTICIDES
Boellstorff, D.E.; Ohlendorf, H.M.; Anderson, D.W.; O'Neill, E.J.; Keith, J.O.; Prouty, R.M. 1985 Archives of Environmental Contamination and Toxicology 14:485-493

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
13207 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected-0.32 ppm c) Not detected Wet wt	a) Not detected b) Not detected c) Not detected Wet wt	a) Wisconsin, adult, 8/78 b) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) c) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

(next page)

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 Cl) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 Cl)
5103-71-9
C10-H6-Cl8
MW 409.76

Heron, black-crowned night
NYCTICORAX NYCTICORAX

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13208 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not detected b) Not detected c) Not detected d) Not applicable e) Not applicable f) Not detected g) Not detected	a) Not detected b) Not detected c) Not detected d) 0.15 ppm e) 0.43 ppm f) Not detected g) Not detected Wet wt	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Vermont, fledged immatures shot 8/70 c) Alabama, fledged immatures shot 7/70 d) Michigan, adult shot 5/70 e) Wisconsin, adult, 8/78 f) Nevada, adults, 7/75 (possible DDE poisoning, 1 bird) g) New Mexico, dead chick, 6/77 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 *Pesticides Monitoring Journal* 14(4):125-135				

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
13209 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-0.59 ppm b) Not detected-2.50 ppm c) Not detected-0.76 d) Not applicable e) Not applicable f) Not detected g) Not detected-0.53 ppm h) 0.11-1.40 ppm Wet wt	a) Not applicable b) Not applicable c) Not applicable d) 0.83 ppm e) 0.33 ppm f) Not detected g) Not applicable h) 0.64 ppm Wet wt	a) Maryland, adult and fledged immatures, 6/70-8/73 b) Virginia, adults, possible dieldrin poisoning (2 birds), 1970-5/74 c) Florida, adults and fledged immature, possible dieldrin poisoning (1 bird), 2/73 d) North Carolina, adult, DDT poisoning, 2/76 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adult and fledged immatures shot 8/73 g) Minnesota, adults, chicks and immature, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adults, possible dieldrin (1 bird) and endrin (1) poisoning, 12/76-5/79 Part of large study of organochlorines and mortality in herons. Mean in h) calculated by extractor. Detection limit 0.1 ppm. GLC

(next page)

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)

5103-71-9
C10-H6-Cl8
MW 409.76

Heron, great blue
ARDEA HERODIAS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13210 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected-0.58 ppm b) Not detected-1.2 ppm c) Not detected-1.4 ppm d) Not detected-1.7 ppm e) Not applicable f) Not detected-1.7 ppm g) Not detected-0.24 ppm h) Not applicable Wet wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) 0.23 ppm f) Not applicable g) Not applicable h) 0.33 ppm Wet wt	a) Vermont, fledged immatures shot 8/70 b) Maryland, adults and fledged immatures collected 7/66-8/73 c) Virginia, adults, 1970-1/76 d) Florida, adults and fledged immature, 2/73 e) Illinois, adult, dieldrin poisoning, 6/77 f) Michigan, adults and fledged immatures shot 5/70, 8/73 g) Minnesota, adults, immature and chicks, dieldrin (3 birds) and endrin (1) poisoning, 4/72-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13211 Carcass	a) 1 b) 6 c) 4	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) Massachusetts, adult, possible paralytic shellfish poisoning, 9/72 b) Maryland, chicks, 6/69 c) Alabama, adults and fledged immature shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC

BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)
5103-71-9
C10-H6-Cl8
MW 409.76

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
13212 Carcass	a) 6 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES				
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
13213 Carcass	a) 2 b) 1	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Alabama, fledged immatures shot 7/70 b) Louisiana, fledged immature, 7/71 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES				
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
13214 Carcass	3	Not detected	Not detected	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Detection limit 0.1 ppm. GLC
BODY; BRAIN; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ALABAMA; CALIFORNIA; FLORIDA; ILLINOIS; LOUISIANA; MARYLAND; MASSACHUSETTS; MICHIGAN; MINNESOTA; NEBRASKA; NEVADA; NEW MEXICO; VERMONT; VIRGINIA; WISCONSIN; ADULTS; JUVENILES; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDD; DDE; DDT; DIELDRIN; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; INSECTICIDES; NONACHLOR; PESTICIDES; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; PESTICIDE RESIDUES				
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135				

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)

5103-71-9
C10-H6-Cl8
MW 409.76

Pelican, American white
PELECANUS ERYTHRORHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
13215 Eggs	10	Not detected-0.12 ppm Wet wt	Not given	Collected 1969, detected in 3/10. Detection limit 0.1 ppm. California, Klamath Basin National Wildlife Refuges GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; EGGS; BODY; BRAIN; DDT; DDE; CALIFORNIA; DIELDRIN; WATERFOWL; POLYCHLORINATED BIPHENYLS; PESTICIDE RESIDUES; BIOLOGICAL MONITORING; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS; PESTICIDES
Boellstorff, D.E.; Ohlendorf, H.M.; Anderson, D.W.; O'Neill, E.J.; Keith, J.O.; Prouty, R.M. 1985 Archives of Environmental Contamination and Toxicology 14:485-493

Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
13216 Ovary		a) Not given b) Not given c) Not given d) Not given	a) 0.04 ug/g b) 0.02 ug/g c) 0.02 ug/g d) 0.02 ug/g	a) Lake Erie b) Wauseon Reservoir c) New London Reservoir d) Findlay Reservoir 1978. Ohio Bilateral asymmetry

BODY; OVARIES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; OHIO; WISCONSIN; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; POPULATION EXPOSURE; BIOINDICATORS
Carline, R.F.; Lawal, M.V. 1985 Environmental Toxicology and Chemistry 4:543-547

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
13217 Eggs	a) 15 b) 8 c) 10	a) 0-23 ppb b) 7-13 ppb c) 0-14 ppb Wet wt	a) 10.3+/-6.86 ppb b) 9.33+/-3.21 ppb c) 7.30+/-4.72 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC

(next page)

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)
5103-71-9
C10-H6-Cl8
MW 409.76

Salmon, Baltic
SALMO SALAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13218 Liver	a) 15 b) 3 c) 10	a) 0-22 ppb b) 0-9 ppb c) 0-5 ppb Wet wt	a) 3.27+/-5.57 ppb b) 3.33+/-4.93 ppb c) 2.40+/-1.58 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacraficed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC
13219 Muscle	a) 14 b) 3 c) 10	a) 0-30 ng/g b) 0-9 ng/g c) 0-19 ng/g Wet wt	a) 15.1+/-8.31 ng/g b) 3.00+/-5.20 ng/g c) 5.80+/-5.09 ng/g Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Detection limit 0.5 ng/g. Finland, Baltic Sea GC-EC
FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740				

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
13220 Eggs	11	0-4 ppb Wet wt	2.45+/-1.21 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg egg fat 2.72%. Finland, Baltic Sea GC-EC
13221 Liver	11	0-2 ppb Wet wt	0.45-0.82 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland, Baltic Sea GC-EC

(next page)

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)

5103-71-9
C10-H6-Cl8
MW 409.76

Trout, Bothnian Bay
SALMO TRUTTA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
13222 Muscle	11	0-5 ppb Wet wt	1.73+/-1.68 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC-EC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES
Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
13223 Fillets	3	0.077-0.084 ppm	0.080+/-0.0023 ppm	Included skin. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION
Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9

4,7-Methanoindan, 1alpha,2alpha,4beta,5,6,7beta,8,8-octachloro-3aalpha,4,7,7aalpha-tetrahydro (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2alpha,3aalpha,4beta,7beta,7aalpha)- (9 CI)
5103-71-9
C10-H6-Cl8
MW 409.76
Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
13224 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Not detected b) Not detected c) Not detected d) 0.12+/-0.20 ppm e) Not detected Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 3%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82, 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC
ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49				

4,7-Methanoindan, 1beta,2alpha,4alpha,5,6,7alpha,8,8-octachloro-3abeta,4,7,7abeta-tetrahydro- (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3aalpha,4beta,7beta,7aalpha)- (9 CI)
5103-74-2
C10-H6-Cl8
MW 409.76
Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13225 Body, whole		Not given	0.01 ug/g Wet wt *Geometric*	Collected 6/81 from Little Pigeon Bayou. Louisiana, Atchafalaya River Basin GLC
FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586				

4,7-Methanoindan, 1beta,2alpha,4alpha,5,6,7alpha,8,8-octachloro-3abeta,4,7,7abeta-tetrahydro- (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3aalpha,4beta,7beta,7aalpha)- (9 CI)
5103-74-2
C10-H6-Cl8
MW 409.76

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13226 Body, whole		a) Not given Not given	a) 0.01 ug/g b) 0.01 ug/g Wet wt Geometric	a) Collected 6/81 from Spring Bayou b) Collected 6/81 from Henderson Lake. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
13227 Body		0.00-0.22 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=3.1 ug/g. Part of National Pesticides Monitoring Program. United States GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING
Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260

Gar, spotted
LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13228 Body, whole		a) Not given Not given	a) 0.01 ug/g b) 0.01 ug/g Wet wt Geometric	a) Collected 6/81 from Spring Bayou b) Collected 6/81 from Henderson Lake. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

4,7-Methanoindan, 1beta,2alpha,4alpha,5,6,7alpha,8,8-octachloro-3abeta,4,7,7abeta-tetrahydro- (8 CI) 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-, (1alpha,2beta,3aalpha,4beta,7beta,7aalpha)- (9 CI)

5103-74-2
C10-H6-Cl8
MW 409.76

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
13229 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.08+/-0.13 ppm b) 0.04+/-0.09 ppm c) Not detected d) Not detected e) Not detected Lipid wt	a) Males, uncontaminated area of Maryland b) Females c) Contaminated brackish water, Hakensack Meadowlands New Jersey, males d) Females e) Contaminated fresh water, New Jersey, males Collected 6-8/81 and 6-8/82. Frequency of detection 9%. Detection limit 0.1 ppm. % lipid was, respectively: 63.29+/-14.49, 71.00+/-9.76, 13.88+/-13.07, 24.67+/-18.82 73.38+/-8.05. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ GLC

ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; LIVER; KIDNEYS; ADIPOSE TISSUE; NEW JERSEY; MARYLAND; CADMIUM; CHROMIUM; COPPER; LEAD; MERCURY; NICKEL; ZINC; CHLORDANE; NONACHLOR; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; PESTICIDES; METALS; WATER POLLUTION

Albers, P.H.; Sileo, L.; Mulhern, B.M. 1986 Archives of Environmental Contamination and Toxicology 15:39-49

4,7-Methanoindan, 2,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-, stereoisomer (8 CI); 4,7-Methano-1H-indene, 2,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)

5566-34-7
C10-H6-Cl8
MW 409.76

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13230 Body		Not applicable	<0.002 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

4,7-Methanoindan, 2,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-, stereoisomer (8 CI); 4,7-Methano-1H-indene, 2,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
5566-34-7
C10-H6-Cl8
MW 409.76

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13231 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13232 Body		Not applicable	<0.002 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13233 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindan, 2,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-, stereoisomer (8 CI); 4,7-Methano-1H-indene, 2,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
5566-34-7
C10-H6-Cl8
MW 409.76
Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13234 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
13235 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) 0.05 mg/kg b) 0.04 mg/kg c) <0.002 mg/kg d) <0.002 mg/kg e) <0.002 mg/kg f) 0.002 mg/kg g) 0.002 mg/kg h) 0.002 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, above DePere, 10/10/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindan, 2,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-, stereoisomer (8 Cl); 4,7-Methano-1H-indene, 2,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)

5566-34-7
C10-H6-Cl8
MW 409.76

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13236 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13237 Body		a) Not applicable b) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

4,7-Methanoindan, 2,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-, stereoisomer (8 Cl); 4,7-Methano-1H-indene, 2,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)

5566-34-7
C10-H6-Cl8
MW 409.76
Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
13238 *Eggs*	a) 15 b) 3 c) 10	a) 0-21 ppb b) 8-17 ppb c) 0-12 ppb Wet wt	a) 6.67+/-7.35 ppb b) 12.3+/-4.51 ppb c) 2.50+/-4.77 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg egg fat 5.13-5.68%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC
13239 Liver	a) 15 b) 3 c) 10	a) 0-13 ppb b) 2-34 ppb c) 0-8 ppb Wet wt	a) 2.53+/-3.64 ppb b) 13.3+/-17.9 ppb c) 2.50+/-2.55 ppb Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg liver fat 2.06-2.37%. Detection limit 0.5 ppb. Finland, Baltic Sea GC-EC
13240 Muscle	a) 14 b) 3 c) 10	a) 0-32 ng/g b) 5-16 ng/g c) 0-12 ng/g Wet wt	a) 13.3+/-11.3 ng/g b) 10.7+/-5.51 ng/g c) 5.20+/-3.58 ng/g Wet wt	a) Kemi River population, collected 6/82 during spawning migration, Baltic Sea near river mouth b) Kymi River population, collected 6/82 during spawning migration, Gulf of Finland near river mouth c) Hatchery grown, northern Finland Eggs stripped and fish sacrificed 10/82. Avg wt 3.22-5.00 kg, avg length 65.1-82.0 cm, avg muscle fat 4.02-5.43%. Detection limit 0.5 ng/g. Finland, Baltic Sea GC-EC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; *ENVIRONMENTAL EXPOSURE*; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES

Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

4,7-Methanoindan, 2,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-, stereoisomer (8 CI); 4,7-Methano-1H-indene, 2,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 CI)
5566-34-7
C10-H6-Cl8
MW 409.76

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13241 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
13242 Body		Not applicable	<0.002 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
13243 Liver	11	0-1 ppb Wet wt	0.09-0.30 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg liver fat 2.72%. Finland, Baltic Sea GC-EC
13244 Muscle	11	0-6 ppb Wet wt	0.91+/-2.07 ppb Wet wt	Local Kemi River population, collected 6/82. Eggs stripped and fish sacrificed 10/82. Avg wt 3.15 kg, avg length 66.9 cm, avg muscle fat 3.15%. Finland GC-EC

FISHES; CHLORINE ORGANIC COMPOUNDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; EGGS; PESTICIDE RESIDUES; FINLAND; BALTIC SEA; CHLORINATED HYDROCARBONS; WATER POLLUTION; PESTICIDES
Vuorinen, P.J.; Paasivirta, J.; Piilola, T.; Surma-Aho, K.; Tarhanen, J. 1985 Chemosphere 14(11/12):1729-1740

4,7-Methanoindan, 2,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-, stereoisomer (8 Cl); 4,7-Methano-1H-indene, 2,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (9 Cl)

5566-34-7
C10-H6-Cl8
MW 409.76

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
13245 Fillets	3	0.033-0.036 ppm	0.035+/-0.0013 ppm	Included skin. Range, mean are of 10 replicates. Whole wt basis. % lipid was 17.1+/-0.084, range 16.95-17.25. Lake Michigan GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; FILLETS; MEASUREMENT METHODS; LAKE MICHIGAN; POLYCHLORINATED BIPHENYLS; OXYCHLORDANE; CHLORDANE; NONACHLOR; TOXAPHENE; HEPTACHLOR EPOXIDE; DDE; DDT; DDD; DIELDRIN; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; INDUSTRIAL CHEMICALS; WATER POLLUTION Price, H.A.; Welch, R.L.; Scheel, R.H.; Warren, L.A. 1986 Bulletin of Environmental Contamination and Toxicology 37:1-9				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
13246 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg c) <0.002 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8

C10-H5-Cl7

MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Bass, rock

AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13247 Body		Not applicable	<0.002 mg/kg	Fox River, WI, above DePere, 10/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bluegill

LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13248 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bowfin

AMIA CALVA

Tissue	Cases Exposure Route	Range	Mean	General Information
13249 Body, whole		Not given	0.01 ug/g Wet wt Geometric	Collected 6/81 from Lake Fausse Point. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS

Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13250 Body		Not applicable	<0.002 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13251 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13252 Body		Not applicable	<0.002 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)
76-44-8
$C_{10}H_5Cl_7$
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Carp
CYPRINUS CARPIO

Tissue	Cases / Exposure Route	Range	Mean	General Information
13253 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg c) <0.002 mg/kg d) <0.002 mg/kg e) <0.002 mg/kg f) <0.002 mg/kg g) <0.002 mg/kg h) <0.002 mg/kg i) <0.002 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 7/15/81 g) Fox River, WI, 9/15/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/10/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems.

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases / Exposure Route	Range	Mean	General Information
13254 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Tissue	Cases / Exposure Route	Range	Mean	General Information
13255 Muscle	2	Not given	1.370+/-0.051 ug/g fat	From samples with mean of 3.67% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

4,7-*Methanoindene*, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13256 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
13257 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; *ENVIRONMENTAL EXPOSURE*; *LOUISIANA*; *CHLORINE* ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; *POLYCHLORINATED BIPHENYLS*; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13258 Adipose		0.006-0.369 ppm Fat basis	0.124 ppm Fat basis	Samples purchased at Baghdad meat markets in 1983. Sum of heptachlor and heptachlor epoxide. Iraq GC
ADIPOSE TISSUE; CATTLE; SHEEP; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; IRAQ; HEPTACHLOR; DIELDRIN; DDT; LINDANE; BIOACCUMULATION Al-Omar, M.; Al-Bassomy, M.; Al-Ogaily, N.; Al-Din Shebl, D. 1985 Bulletin of Environmental Contamination and Toxicology 34:509-512				

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)
76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13259 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13260 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION
DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
13261 Body, whole		Not given	0.01 ug/g Wet wt Geometric	Collected 6/81 from Lake Fausse Point. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS
Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Crayfish
PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
13262 Body, whole	50	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 10 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
13263 Body		0.00-0.30 ug/g Wet wt	Not given	Study of 315 composite samples (3-5 adults of species) from 107 stations in more than 45 states, 1980-81. Range from total of 62 species. Maximum value in lipid wt=3.8 ug/g. Part of National Pesticides Monitoring Program. United States GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; UNITED STATES; PESTICIDES; PESTICIDE RESIDUES; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; DIELDRIN; CHLORDANE; HEXACHLOROBENZENE; TOXAPHENE; COMPARATIVE EVALUATIONS; WATER POLLUTION; BIOLOGICAL MONITORING

Schmitt, C.J.; Zajicek, J.L.; Ribick, M.A. 1985 Archives of Environmental Contamination and Toxicology 14:225-260

Tissue	Cases Exposure Route	Range	Mean	General Information
13264 Body, whole		<0.5-77 ppb	Not given	Composite sample from 22 watersheds near Great Lakes, 1978. Total of 26 samples collected, included 138 individuals: walleye, carp, white sucker, channel catfish, freshwater drum, quillback, stone roller, goldfish, brown trout, hog sucker, coho salmon. Detection limit 0.5 ppb. US EPA Region V: Minnestota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, New York MID GLC/MS

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; BODY; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; MINNESOTA; WISCONSIN; MICHIGAN; OHIO; INDIANA; PENNSYLVANIA; NEW YORK; DDT; DDE; POLYCHLORINATED BIPHENYLS; HEPTACHLOR; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; OXYCHLORDANE; CHLORDANE; NONACHLOR

Veith, G.D.; Kuehl, D.W.; Leonard, E.N.; Welch, K.; Pratt, G. 1981 Pesticides Monitoring Journal 15(1):1-8

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)
76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI);

Fish (B. belaweyi)
BARBUS BELAWEYI

Tissue	Cases Exposure Route	Range	Mean	General Information
13265 Muscle	4	Not given	2.707+/-0.794 ug/g fat	From samples with mean of 1.36% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (B. grypus)
BARBUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13266 Muscle	11	a) Not given b) Not given	a) 0.333+/-0.316 ug/g b) 1.1984+/-0.494 ug/g Fat basis	a) From samples with >2% fat (mean 3.03%), older animals b) <2% fat (mean 0.89%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (B. luteus)
BARBUS LUTEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13267 Muscle	6	a) Not given b) Not given	a) 0.970 ug/g b) 1.459+/-0.418 g Fat basis	a) From samples with >2% fat (mean 2.10%), older animals b) <2% fat (mean 0.60%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA
Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8

C10-H5-Cl7

MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Fish (B. xanthopterus)
BARBUS XANTHOPTERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13268 Muscle	6	a) Not given b) Not given	a) 1.399+/-0.420 ug/g b) 2.303+/-1.713 ug/g Fat basis	a) From samples with >2% fat (mean 3.05%), older animals b) <2% fat (mean 1.44%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (C. regius)
CHONDROSTOMA REGIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13269 Muscle	19	a) Not given b) Not given	a) 1.353+/-1.266 ug/g b) 2.465+/-1.214 ug/g Fat basis	a) From samples with >2% fat (mean 3.84%), older animals b) <2% fat (mean 1.06%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (G. ruffa)
GARRA RUFFA

Tissue	Cases Exposure Route	Range	Mean	General Information
13270 Muscle	2	Not given	1.085+/-1.207 ug/g fat	From samples with mean of 4.25% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8

C10-H5-Cl7

MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Fish (H. fossilis)

HETEROPNEUSTES FOSSILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
13271 Muscle	3	a) Not given b) Not given	a) 5.205ug/g b) 4.012 ug/g Fat basis	a) From samples with >2% fat (mean 2.58%), older animals b) <2% fat (mean 1.80%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (L. abu)

LIZA ABU

Tissue	Cases Exposure Route	Range	Mean	General Information
13272 Muscle	11	a) Not given b) Not given	a) 1.401+/-0.635 ug/g b) 3.84+/-3.623 ug/g Fat basis	a) From samples with >2% fat (mean 2.40%), older animals b) <2% fat (mean 0.94%), younger animals 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

Fish (M. pelusius)

MYSTUS PELUSIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13273 Muscle	4	Not given	1.367+/-0.234 ug/g fat	From samples with mean of 0.47% fat. 1-3 yr old fish collected during 10/83-7/84 from river where sewage treatment plant in Baghdad discharges treated water. India, Baghdad, Diyala River GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; FISHES; WATER POLLUTION; PESTICIDES; MUSCLES; CHLORINE ORGANIC COMPOUNDS; ALDRIN; DDT; INDIA

Al-Omar, M.A.; Al-Ogaily, N.H.; Shebil, D.-A. 1986 Bulletin of Environmental Contamination and Toxicology 36:109-113

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
13274 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected south of Madeira. Deep water (800-1200 m) habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
13275 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected from local fish market in Porto Santo, East of Madeira. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
13276 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected off Northern Coast of Sao Miguel, Azores. Surface water habitat. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES
Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8

C10-H5-Cl7

MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Frog

RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13277 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
13278 Muscle	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Gar, spotted

LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13279 Body, whole		Not given	0.01 ug/g Wet wt Geometric	Collected 6/81 from Lake Fausse Point. Louisiana, Atchafalaya River Basin GLC

FISHES; AGRICULTURE; PESTICIDE RESIDUES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; BODY; METALS; DDT; LOUISIANA; COMPARATIVE EVALUATIONS; ALDRIN; DIELDRIN; ARSENIC; CADMIUM; SELENIUM; LEAD; MERCURY; ZINC; POLYCHLORINATED BIPHENYLS

Winger, P.V.; Andreasen, J.K. 1985 Archives of Environmental Contamination and Toxicology 14:579-586

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
13280 Body, whole	10	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not given	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) 0.010 ppm	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Mean f) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION

Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13281 Body		a) Not applicable b) Not applicable	a) 0.30 mg/kg b) <0.002 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 *Composite samples.* Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Tissue	Cases Exposure Route	Range	Mean	General Information
13282 Liver	1	Not applicable	<0.1 mg/kg Lipid basis	Collected at Lake Sete Cidades, Sao Miguel, Azores. Atlantic Ocean GC-EC

LIVER; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; ATLANTIC OCEAN; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; POLYCHLORINATED BIPHENYLS; PESTICIDES; NONACHLOR; OXYCHLORDANE; DIELDRIN; BIOACCUMULATION; WATER POLLUTION; PESTICIDE RESIDUES

Kramer, W.; Buchert, H.; Reuter, U.; Biscoito, M.; Maul, D.G.; Le Grand, G.; Ballschmiter, K. 1985 Chemosphere 13(11):1255-1267

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)
76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Raccoon
PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
13283 Muscle	10	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) Not detected b) Not detected c) Not detected d) Not detected e) Not detected f) Not detected	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Limit of detection 0.05 ppm. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Shad
DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13284 Body, whole	25	a) Not given b) Not applicable c) Not given d) Not applicable e) Not given f) Not given	a) 0.010 ppm b) Not detected c) 0.012 ppm d) Not detected e) 0.016 ppm f) 0.600	a) Lake Verret, 1978 b) 1979 c) Plaquemine-Brule Bayou, 1978 d) 1979 e) East Franklin, 1978 f) 1979 Site and year of collection. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Means a), c), and e) exceeded by S.E. Louisiana GC-EC

BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)
76-44-8
C10-H5-Cl7
MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13285 Adipose		0.019-0.203 ppm Fat basis	0.067 ppm Fat basis	Samples purchased at Baghdad meat markets in 1983. Sum of heptachlor and heptachlor epoxide. Iraq GC
ADIPOSE TISSUE; CATTLE; SHEEP; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; IRAQ; HEPTACHLOR; DIELDRIN; DDT; LINDANE; BIOACCUMULATION Al-Omar, M.; Al-Bassomy, M.; Al-Ogaily, N.; Al-Din Shebl, D. 1985 Bulletin of Environmental *Contamination* and Toxicology 34:509-512				

Snake, water
NATRIX sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13286 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) Not detected	a) *Lake Verret* b) Plaquemine-Brule Bayou c) East Franklin *Site of collection* in 1979. Each determination is average of 5 groups of 5 individuals. Limit of detection 0.05 ppm. Louisiana GC-EC
BODY; MUSCLES; HERONS; FISHES; FROGS; SNAKES; CRAYFISH; RACCOONS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; LOUISIANA; CHLORINE ORGANIC COMPOUNDS; DDT; DDE; DDD; DIELDRIN; POLYCHLORINATED BIPHENYLS; NONACHLOR; PESTICIDE RESIDUES; BIOACCUMULATION Haesloop, U., Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841				

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13287 Body		Not applicable	<0.002 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

4,7-Methanoindene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (8 CI); 4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro- (9 CI)

76-44-8

C10-H5-Cl7

MW 373.35, MP 95-96 C, VP 3X10(E-4) mm Hg at 25 C

Sucker, white

CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
13288 Body		Not applicable	<0.002 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Walleye

STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
13289 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.002 mg/kg b) <0.002 mg/kg c) <0.002 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite (8 CI); 6,9-Methano-2,4,3-benzodioxathiepan, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide (9 CI)

115-29-7
C9-H6-Cl6-O3-S
MW 406.95, MP 106 C, VP 1X10(E-5) mm Hg at 25 C

Barbel
CLARIAS GARIEPINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13290 Adipose	3	0.33-1.70 mg/kg	1.09 mg/kg	Fat extracted from muscle, liver and skin. Collections in 1978 from Olifants River (near Marble Hall, 200 km NE of Pretoria), Olifants River Dame (near Phalaborwa, 450 km NE of Pretoria), Letalea River (Hans Merensky Nature Reserve). South Africa GC
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251				

Cormorant, white-breasted
PHALACROCORAX CARBO LUCIDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13291 Adipose	a) 3 b) 1	a) Not detected-1.27 mg/kg b) Not applicable	a) 0.68 mg/kg b) 0.68 mg/kg	a) From Olifants River (near Marble Hall, 200 km NE of Pretoria), Letaba River (Hans Mevensky Nature Reserve), Lacot Dam (Letaba District) b) Found dead, Njelele Dame Collections in 1978. Fat extracted from muscle, liver, skin or samples from dead animals. South Africa GC
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251				

Goose, Egyptian
ALOPOCHEN AEGYPTIACUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13292 Adipose	3	Not detected-0.23 mg/kg	Not given	Found dead in Carolina district, 1978, fat from samples. South Africa GC
ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251				

5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite (8 CI); 6,9-Methano-2,4,3-bensodioxathiepan, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide (9 CI)
115-29-7
C9-H6-Cl6-O3-S
MW 406.95, MP 106 C, VP 1X10(E-5) mm Hg at 25 C
Kurper
SAROTHERODEN sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13293 Adipose	3 b) 1	a) Not detected-0.50 mg/kg b) Not applicable	a) 0.17 mg/kg b) 1.07 mg/kg	a) From Olifants River (near Marble Hall, 200 km NE of Pretoria), Olifants River Dam (near Phalaborwa, 450 km Ne of Pretoria), Letalea River (hans Merensky Nature Reserve) b) Found dead, Njelele Dam Collections in 1978. Fat extracted from muscle, liver, skin or samples from dead animals. South Africa GC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS
Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251

Yellowfish
BARBUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13294 Adipose	a) 1 b) 1	a) Not applicable b) Not applicable	a) 5.88 mg/kg b) 2.60 mg/kg	a) From Olifants River (near Marble Hall, 200 km NE of Pretoria) b) Found dead, Njelele Dam Collections in 1978. Fat extracted from muscle, liver, skin or samples from dead animals. South Africa GC

ENVIRONMENTAL EXPOSURE; AQUATIC; TERRESTRIAL; BIRDS; FISHES; PESTICIDES; PESTICIDE RESIDUES; ADIPOSE TISSUE; DDT; DDE; DIELDRIN; ENDOSULFAN; BENZENE HEXACHLORIDE; SOUTH AFRICA; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS
Pick, F.E.; de Beer, P.R.; van Dyk, L.P. 1981 Chemosphere 10(11/12):1243-1251

5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite, exo- (8 CI); 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3alpha,5aalpha,6beta,9beta,9aalpha)- (9 CI)

33213-65-9

C9-H6-Cl6-O3-S

Bluegill

LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13295 Body		Not applicable	0.015 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead

ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13296 Body		Not applicable	0.03 mg/kg	Menominee River, WI, 8/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Bullhead, brown

ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13297 Body		Not applicable	0.01 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite, exo- (8 CI); 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3alpha,5aalpha,6beta,9beta,9aalpha)- (9 CI)

33213-65-9

C9-H6-Cl6-O3-S

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases	Range	Mean	General Information
	Exposure Route			
13298 Body		Not applicable	0.005 mg/kg	Ashtabula River, OH, 10/28/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Carp
CYPRINUS CARPIO

Tissue	Cases	Range	Mean	General Information
	Exposure Route			
13299 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) Not applicable h) Not applicable i) Not applicable	a) 0.004 mg/kg b) 0.01 mg/kg c) 0.04 mg/kg d) 0.02 mg/kg e) 0.01 mg/kg f) 0.03 mg/kg g) 0.02 mg/kg h) 0.02 mg/kg i) 0.01 mg/kg	a) Black River, OH, 10/21/81 b) Sheboygan River, WI, 9/30/80 c) Another sample, same as b) d) Menominee River, WI, 8/15/81 e) Kinnickinnic River, WI, 7/15/81 f) Wolf River, WI, 9/15/80 g) Fox River, WI, 9/15/80 h) Same, except 11/15/81 i) Fox River, below DePere, 10/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite, exo- (8 CI); 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3alpha,5aalpha,6beta,9beta,9aalpha)- (9 CI)

33213-65-9

C9-H6-Cl6-O3-S

Crappie, black

POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13300 Body		Not applicable	0.01 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Pike, northern

ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
13301 Body		a) Not applicable b) Not applicable	a) 0.01 mg/kg b) 0.02 mg/kg	a) Ashtabula River, OH, 10/28/81 b) Sheboygan River WI, 9/30/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

Sucker, redhorse

MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
13302 Body		Not applicable	0.02 mg/kg	Milwaukee River, WI, 7/15/81. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION

DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594

5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-, cyclic sulfite, exo- (8 CI); 6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3alpha,5aalpha,6beta,9beta,9aalpha)- (9 CI)
33213-65-9
C9-H6-Cl6-O3-S
Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
13303 Body		Not applicable	0.01 mg/kg	Chequamegon Bay, Lake Superior, WI, 8/15/80. Composite sample. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
13304 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.01 mg/kg b) 0.04 mg/kg c) 0.03 mg/kg	a) Wolf River, WI, 9/15/80 b) Fox River, WI, below DePere, 10/15/80 c) Chequamegon Bay, Lake Superior, WI, 8/15/80 Composite samples. Part of Great Lakes Fish Monitoring Program to locate source areas of contaminants and detect emerging problems. Great Lakes harbors and tributaries GC-EC
FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; CHLOROBENZENES; HEPTACHLOR EPOXIDE; HEXACHLOROBENZENE; HEXACHLOROCYCLOHEXANE; DDD; DDE; DDT; DIELDRIN; ALDRIN; INDUSTRIAL CHEMICALS; LINDANE; POLYCHLORINATED BIPHENYLS; POLYCYCLIC AROMATIC HYDROCARBONS; BIOLOGICAL MONITORING; OHIO; WISCONSIN; WATER POLLUTION DeVault, D.S. 1985 Archives of Environmental Contamination and Toxicology 14:587-594				