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NATIONAL BODY-BURDEN DATABASE

CHEMICALS IDENTIFIED IN ANIMALS

1985-1986
VOLUME V, PART 3

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CHEMICALS IDENTIFIED IN ANIMALS
1985-1986
VOLUME V, Part 3

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DATABASE RECORDS

8,399-10,918

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8399 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) 0.256 mg/kg b) 0.876 mg/kg c) 1.48 mg/kg d) 1.703 mg/kg e) 1.582 mg/kg f) 0.215 mg/kg g) 0.496 mg/kg h) 0.113 mg/kg i) 0.266 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
8400 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) 2.464 mg/kg b) 11.297 mg/kg c) 25.014 mg/kg d) 52.661 mg/kg e) 29.059 mg/kg f) 13.771 mg/kg g) 2.407 mg/kg h) 12.585 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 approximately 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8401 Body, whole	536	12-125 ug/kg Wet wt	44 ug/g 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
8402 Muscle	2	Not given	10.195+/-1.086 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

Carpsucker, river
CARPIODES CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8403 Body, whole	302	10-329 ug/g Wet wt	68 ug/g 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8404 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

Tissue	Cases Exposure Route	Range	Mean	General Information
8405 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.17 ug/g b) 0.45 ug/g c) 0.34 ug/g d) 0.07 ug/g e) 0.17 ug/g f) 0.06 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

Tissue	Cases Exposure Route	Range	Mean	General Information
8406 Body, whole	86	16-118 ug/kg Wet wt	78 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8407 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
8408 Adipose		0.059-2.503 ppm Fat basis	0.875 ppm Fat basis	Samples purchased from Baghdad meat markets in 1983. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
8409 Milk, fat	2	Not applicable	0.03 mg/kg	Study also looked at levels in milk products, human milk, fruits and vegetables. All levels below FAO and WHO recommended safe levels. Greece GC/MS

MILK; CATTLE; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; GREECE; CHLORINE ORGANIC COMPOUNDS; HEXACHLOROCYCLOHEXANE; DDT; BIOACCUMULATION
Fytianos, K.; Vasilikiotis, G.; Weil, L; Kavlendis, E.; Laskaridis, N. 1985 Bulletin of Environmental Contamination and Toxicology 34:504-508

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Charr
SALVELINUS ALPINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8410 Eggs		a) 0.036-0.17 ppm b) 3.6-44 ppm	a) 0.100 ppm b) 15.1 ppm	a) Wet weight b) Lipid weight Mean calculated from table. Ova from 18 females collected 12/15, 12/16, and 12/22/81, fertilized with sperm of males (3 males/female) captured at same time. Significant positive correlation between DDT levels (lipid wt basis) and total mortality rates ($p<0.01$). Approximately 2/3 of level was p,p'-DDE, remainder p,p'-DDT and p,p'-DDD. Switzerland, Lake Geneva Total mortality highly variable (5-76%) between spawns.

EGGS; FISHES; AQUATIC; DDT; POLYCHLORINATED BIPHENYLS; CHLORINE ORGANIC COMPOUNDS; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; SWITZERLAND
Monod, G. 1985 Bulletin of Environmental Contamination and Toxicology 35:531-536

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8411 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) 391 ug/kg b) 114 ug/kg c) 35 ug/kg d) 139 ug/kg e) 7.6 ug/kg f) 2.3 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

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

Tissue	Cases Exposure Route	Range	Mean	General Information
8412 Adipose	3	0.550-0.1670 ppm Wet wt	0.587 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8413 Adipose	22	0.480-20.832 ppm Wet wt	4.157+/-1.027 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Tissue	Cases Exposure Route	Range	Mean	General Information
8414 Blood, plasma	3	0.005-0.012 ppm Wet wt	0.009 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8415 Brain	3	0.009-0.012 ppm Wet wt	0.011 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
8416 Brain	19	0.022-0.121 ppm Wet wt	0.082+/-0.006 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8417 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) 188 ug/kg b) 177 ug/kg c) 137 ug/kg d) 27 ug/kg e) 3.9 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

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

Tissue	Cases Exposure Route	Range	Mean	General Information
8418 Heart	3	Not given	0.027 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8419 Kidney	3	Not given	0.039 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8420 Liver	3	Not given	0.036 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
8421 Liver	20	0.134-1.447 ppm Wet wt	0.535+/-0.068 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8422 Lung	3	Not given	0.046 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8423 Muscle	3	Not given	0.038 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
8424 Muscle	10	0.010-0.366 ppm Wet wt	0.138+/-0.030 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Tissue	Cases Exposure Route	Range	Mean	General Information
8425 Spleen	3	Not given	0.027 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Chironomid

Tissue	Cases Exposure Route	Range	Mean	General Information
8426 Body		a) Not given b) Not given	a) 634.018 ug/g b) 40.278 ug/g Wet wt	a) Huntsville Spring Branch, mile 4 b) Indian Creek, Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8427 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
8428 Body		Not applicable	0.31 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8429 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.35 ug/g b) 0.04 ug/g c) 0.10 ug/g d) 0.02 ug/g e) 0.04 ug/g f) 0.03 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. 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
8430 Body, whole	217	6-72 ug/kg Wet wt	46 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

Crayfish
PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
8431 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Crow, house
CORVUS SPLENDENS

Tissue	Cases Exposure Route	Range	Mean	General Information
8432 Adipose	3	31.197-89.713 ppm Wet wt	44.486 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8433 Blood, plasma	3	0.052-0.080 ppm Wet wt	0.066 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8434 Brain	3	0.031-0.128 ppm Wet wt	0.063 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8435 Heart	3	Not given	1.202 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8436 Kidney	3	Not given	0.227 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8437 Liver	3	Not given	0.216 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8438 Lung	3	Not given	0.474 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8439 Muscle	3	Not given	0.570 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8440 Spleen	3	Not given	0.293 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
8441 Adipose	1	42,400-46,600 ng/g Lipid wt	44,500 ng/g Lipid wt	Mean of levels from 3 different areas, front, center and rear. 16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8442 Blood	1	Not applicable	28,500 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8443 Brain	1	a) Not applicable b) Not applicable c) Not applicable	a) 2170 ng/g b) 2660 ng/g c) 1880 ng/g Lipid wt	a) Cerebrum b) Cerebellum c) Medulla oblongata 16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8444 Heart	1	Not applicable	21,000 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8445 Intestine	1	Not applicable	15,700 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8446 Kidney	1	Not applicable	31,900 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8447 Liver	1	Not applicable	20,814 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8448 Lung	1	Not applicable	1,400 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8449 Muscle	1	22,700-31,400 ng/g Lipid basis	27,600 ng/g Lipid basis	Mean of levels from 6 different areas, front, center and rear. 16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
8450 Stomach	1	Not applicable	13,200 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
ENVIRONMENTAL EXPOSURE; AQUATIC; DOLPHINS; JAPAN; PACIFIC OCEAN; ADIPOSE TISSUE; MUSCLES; KIDNEYS; LIVER; INTESTINES; LUNGS; HEART; STOMACH; BLOOD; BRAIN; CEREBRUM; CEREBELLUM; MEDULLA; POLYCHLORINATED BIPHENYLS; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION Tanabe, S.; Tatsukawa, R.; Tanaka, H.; Maruyama, K.; Miyazaki, N.; Fujiyama, T. 1981 Agricultural and Biological Chemistry 45(11):2569-2578				

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
8451 Blood, plasma	3	0.005-0.014 ppm Wet wt	0.009 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8452 Brain	3	0.005-0.023 ppm Wet wt	0.013 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8453 Heart	3	Not given	0.094 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8454 Kidney	3	Not given	0.171 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8455 Liver	3	Not given	0.119 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Dove, rock
COLUMBA LIVIA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8456 Lung	3	Not given	0.068 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
8457 Muscle	10	Not detected-0.04 ppm Wet wt	0.01+/-0.01 ppm Wet wt	Adults, mean wt 334+/-28 g. Shot 7/76. Detection limit 20 pg. Sweden, Vastergotland, Vanersborg GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Tissue	Cases Exposure Route	Range	Mean	General Information
8458 Muscle	3	Not given	0.041 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8459 Spleen	3	Not given	0.293 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Duck, tufted
AYTHYA FULIGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
8460 Muscle	3	0.02-0.10 ppm Wet wt	0.06+/-0.04 ppm Wet wt	Adults, mean wt 832+/-110 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8461 Eggs	4	17-268 ng/g Wet wt	100+/-114 ng/g Wet wt	Collected in 1980-1982. Finland GC-EC
8462 Muscle	4	0-566 ng/g Wet wt	142+/-283 ng/g Wet wt	Collected in 1980-1982. 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

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
8463 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8464 Muscle	a) 1 b) 2 c) 19 d) 5 e) 5 f) 10	a) Not applicable b) 1.3-1.5 mg/kg c) 0.42-2.7 mg/kg d) 1.4-1.9 mg/kg e) 0.35-0.77 mg/kg f) 0.35-0.73 mg/kg Fat basis	a) 2.5 mg/kg b) 1.4 mg/kg c) 1.5 mg/kg d) 1.6 mg/kg e) 0.52 mg/kg f) 0.48 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. 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				

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8465 Adipose	3	8.360-36.267 ppm Wet wt	17.048 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8466 Blood, plasma	3	0.037-0.045 ppm Wet wt	0.041 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8467 Brain	3	0.035-0.045 ppm Wet wt	0.038 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8468 Heart	3	Not given	0.178 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8469 Kidney	3	Not given	0.128 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Egret, cattle
BUBULCUS IBIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8470 Liver	3	Not given	0.171 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8471 Lung	3	Not given	0.078 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8472 Muscle	3	Not given	0.383 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Falcon, peregrine
FALCO PEREGRINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8473 Muscle	4	0.38-1.46 ppm Wet wt	0.98 ppm Wet wt	Nestlings found dead at two eyries, 1977. Weight range 290-400 g. Sweden, northern GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Fieldfare
TURDUS PILARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8474 Muscle	a) 5 b) 10	a) 0.03-1.10 ppm b) 0.03-0.19 ppm Wet wt	a) 0.29+/-0.46 ppm b) 0.09+/-0.05 ppm Wet wt	a) Gallivare, Norrbotten, mean wt 89+/-6 g b) Vanersborg, Vastergotland, mean wt 92+/-11 g Adults, shot 6/76-7/76. Sweden GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
8475 Body, whole		0.03-1.66 ppm	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. US EPA Region V: Minnestota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, New York GLC

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 (A. vorax)
ASPIUS VORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
8476 Muscle	2	Not given	25.417+/-15.462 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
8477 Muscle	4	Not given	10.042+/-3.628 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Fish (B. grypus)
BARBUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8478 Muscle	11	a) Not given b) Not given	a) 3.768+/-2.621 ug/g b) 9.034+/-2.793 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
8479 Muscle	6	a) Not given b) Not given	a) 10.102 ug/g b) 14.235+/-9.613 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
8480 Muscle	6	a) Not given b) Not given	a) 7.072+/-1.009 ug/g b) 20.334+/-13.302 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				

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Fish (C. regius)
CHONDROSTOMA REGIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8481 Muscle	19	a) Not given b) Not given	a) 6.467+/-3.811 ug/g b) 14.286+/-10.805 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
8482 Muscle	2	Not given	6.607+/-3.450 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
8483 Muscle	3	a) Not given b) Not given	a) 17.325 ug/g b) 10.490 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Fish (L. abu)
LIZA ABU

Tissue	Cases Exposure Route	Range	Mean	General Information
8484 Muscle	11	a) Not given b) Not given	a) 12.097+/-5.982 ug/g b) 13.003+/-4.862 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
8485 Muscle	4	Not given	26.629+/-19.269 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				

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Frog
RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8486 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
8487 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
8488 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) 0.09 ug/g b) 0.75 ug/g c) 0.46 ug/g d) 0.46 ug/g e) 0.66 ug/g f) 0.44 ug/g g) 0.09 ug/g h) 1.79 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8489 Adipose	16	0.039-1.014 ppm Wet wt	0.193+/-0.061 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8490 Bone marrow	8	0.169-2.816 ppm Wet wt	0.577+/-0.320 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8491 Brain	14	0.013-0.027 ppm Wet wt	0.019+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8492 Liver	18	0.009-0.190 ppm Wet wt	0.053+/-0.011 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8493 Muscle	24	0.008-0.045 ppm Wet wt	0.020+/-0.003 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Greenshank, common
TRINGA NEBULARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
8494 Muscle	5	0.42-1.70 ppm Wet wt	0.95+/-0.51 ppm Wet wt	Mean wt 148+/-14 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS

Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Grouse, willow
LAGOPUS LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8495 Muscle	13	Not detected	Not detected	Adults, mean wt 564+/-34 g. Shot 6/76-7/76 and 6/77-9/77. Detection limit 20 pg. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Gull, common black-headed
LARUS RIDIBUNDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8496 Muscle	a) 7 b) 8	a) 0.15-0.54 ppm b) 0.07-1.40 ppm Wet wt	a) 0.31+/-0.14 ppm b) 0.39+/-0.50 ppm Wet wt	a) Gallivare, Norrbotten, adults, mean wt 263+/-28 g b) Vanersborg, Vastergotland, 6 adults, 2 juveniles, mean wt 261+/-39 g Shot 6/76-7/76. Sweden GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8497 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.03 ppm b) 0.06 ppm c) 0.06 ppm d) 0.10 ppm e) 0.07 ppm f) 0.05 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
8498 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) 0.014 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 0.05 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

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8499 Muscle	a) 25/yr b) 25/yr c) 15-20/yr d) 15-20/yr e) 15-20/yr	a) 8.2-1.2 mg/kg b) 56-4 mg/kg c) 8-0.5 mg/kg d) 5.5-1 mg/kg e) 18-1.7 mg/kg Fat wt basis Ranges of means	a) Not given b) Not given c) Not given d) Not given e) Not given	a) Collected June 1972-84 from southern Bothnian Sea (Angskarsklubb) b) Same as a), from southern Baltic proper (archipelago outside Karlskrona c) Collected autumn (Sep-Nov) 1969-71 (date published previously) and 1976-84 from Bothnian Bay (Harufjarden) d) Same as c), from southern Bothnian Sea e) Same as c), from southern Baltic proper Maximum to minimum, generally decreasing during the study period. Fish were younger than 4 yr. Some values estimated from graph. Sweden

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MUSCLES; BIRDS; EGGS; SWEDEN; POLYCHLORINATED BIPHENYLS; DDE; DDT; TREND MONITORING
Olsson, M.; Reutergardh, L. 1986 Ambio 15(2):103-109

Kite, pariah
MILVUS MIGRANS

Tissue	Cases Exposure Route	Range	Mean	General Information
8500 Adipose	3	10.310-120.115 ppm Wet wt	44.986 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Kite, pariah
MILVUS MIGRANS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8501 Blood, plasma	3	0.346-0.655 ppm Wet wt	0.522 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8502 Brain	3	0.075-0.077 ppm Wet wt	0.076 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8503 Heart	3	Not given	0.661 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8504 Kidney	3	Not given	0.338 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8505 Liver	3	Not given	0.513 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8506 Lung	3	Not given	0.582 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8507 Muscle	3	Not given	1.675 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8508 Spleen	3	Not given	0.870 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Lapwing
VANELLUS VANELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8509 Muscle	2	Not detected	Not detected	Juveniles, mean wt 205+/-7 g. Shot 7/76. Detection limit 20 pg. Sweden, Vastergotland, Vanersborg GC-EC
MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212				

Mosquitofish
GAMBUSIA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8510 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) 0.54+/-0.06 ng/ul b) 0.78+/-0.06 ng/ul c) 0.61+/-0.08 ng/ul d) 0.81+/-0.13 ng/ul e) 0.53+/-0.10 ng/ul f) 0.67+/-0.11 ng/ul g) 0.56+/-0.10 ng/ul h) 0.45+/-0.02 ng/ul	a) Exposed for 1 hr to DDT b) Exposed for 4 hr c) Exposed for 1 hr to DDT after 4-hr pretreatment with endrin d) Exposed for 4 hr after pretreatment e) Exposed for 1 hr to endrin and DDT f) Exposed for 4 hr g) 1 hr after transfer to untreated water following 4-hr exposure to DDT h) 4 hr after transfer Insecticide levels, 3.94 nM. Fish collected in ponds, maintained minimum 24 hr in lab before testing. Mississippi Scintillation counting

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Mosquitofish
GAMBUSIA AFFINIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8511 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) 0.20+/-0.02 ng/mg b) 0.30+/-0.03 ng/mg c) 0.18+/-0.01 ng/mg d) 0.27+/-0.03 ng/mg e) 0.09+/-0.01 ng/mg f) 0.23+/-0.02 ng/mg g) 0.35+/-0.07 ng/mg h) 0.28+/-0.01 ng/mg Wet wt	a) Exposed for 1 hr to DDT b) Exposed for 4 hr c) Exposed for 1 hr to DDT after 4-hr pretreatment with endrin d) Exposed for 4 hr after pretreatment e) Exposed for 1 hr to endrin and DDT f) Exposed for 4 hr g) 1 hr after transfer to untreated water following 4-hr exposure to DDT h) 4 hr after transfer Insecticide levels, 3.94 nM. Fish collected in ponds, maintained minimum 24 hr in lab before testing. Mississippi Scintillation counting
8512 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) 0.12+/-0.02 ng/mg b) 0.44+/-0.05 ng/mg c) 0.10+/-0.01 ng/mg d) 0.58+/-0.04 ng/mg e) 0.05+/-0.01 ng/mg f) 0.18+/-0.01 ng/mg g) 0.26+/-0.06 ng/mg h) 0.31+/-0.06 ng/mg Wet wt	a) Exposed for 1 hr to DDT b) Exposed for 4 hr c) Exposed for 1 hr to DDT after 4-hr pretreatment with endrin d) Exposed for 4 hr after pretreatment e) Exposed for 1 hr to endrin and DDT f) Exposed for 4 hr g) 1 hr after transfer to untreated water following 4-hr exposure to DDT h) 4 hr after transfer Insecticide levels, 3.94 nM. Fish collected in ponds, 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

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8513 Eggs	7	0-27 ng/g Wet wt	12.6+/-8.22 ng/g Wet wt	Collected in 1980-1982. 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
8514 Ovary		a) Not given b) Not given c) Not given d) Not given	a) 0.24 ug/g b) 0.07 ug/g c) 0.04 ug/g d) 0.07 ug/g	a) Lake Erie b) Wauseon Reservoir c) New London Reservoir d) Findley 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				

Pigeon, wood
COLUMBA PALUMBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8515 Muscle	10	Not detected	Not detected	Adults, mean wt 506+/-27 g. Shot 7/76. Detection limit 20 pg. Sweden, Vastergotland, Vanersborg GC-EC
MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8516 Body		a) Not applicable b) Not applicable	a) 0.603 mg/kg b) 1.93 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				

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8517 Liver	a) 2 b) 1 c) 4	a) 7.2-11 mg/kg b) Not applicable c) 6.2-8.4 mg/kg Fat basis	a) 9.1 mg/kg b) 8.0 mg/kg c) 7.0 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

SWEDEN; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; LIVER; DDT; POLYCHLORINATED BIPHENYLS; BROMINATED HYDROCARBONS; WATER POLLUTION
Anderson, O.; Blomkvist, G. 1981 Chemosphere 10(9):1051-1060

Tissue	Cases Exposure Route	Range	Mean	General Information
8518 Muscle	a) 10-20/yr b) 10-20/yr	a) 2.3-0.2 mg/kg b) 10-1 mg/kg Fat wt basis Ranges of means	a) Not given b) Not given	a) Collected spring 1968-84 from Lake Storvindeln, a 55-sq km forest lake receiving no local pollution b) Collected spring 1967-84 from Lake Bolmen, a 184-sq km lake receiving minor industrial and agricultural pollution Maximum to minimum, generally decreasing during study period. Estimated from graph. Sweden

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MUSCLES; BIRDS; EGGS; SWEDEN; POLYCHLORINATED BIPHENYLS; DDE; DDT; TREND MONITORING
Olsson, M.; Reutergardh, L. 1986 Ambio 15(2):103-109

Tissue	Cases Exposure Route	Range	Mean	General Information
8519 Muscle	a) 5 b) 4	a) 2.4-4.7 mg/kg b) 1.8-2.4 mg/kg Fat basis	a) 3.1 mg/kg b) 2.1 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. 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Plover, golden-, greater
PLUVIALIS APRICARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
8520 Muscle	5	0.07-2.90 ppm Wet wt	0.93+/-1.13 ppm Wet wt	Adults, mean wt 198+/-7 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Ptarmigan
LAGOPUS MUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8521 Muscle	8	Not detected	Not detected	Adults, mean wt 459+/-14 g. Shot 6/76-7/76. Detection limit 20 pg. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Raccoon
PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
8522 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Redshank, spotted
TRINGA ERYTHROPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8523 Muscle	4	0.32-1.60 ppm Wet wt	0.67+/-0.62 ppm Wet wt	Adults, mean wt 131+/-11 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Redwing
TURDUS ILIACUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8524 Muscle	5	0.06-0.22 ppm Wet wt	0.11+/-0.07 ppm Wet wt	Adults, mean wt 59+/-9 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Robin, American
TURDUS MIGRATORIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8525 Carcass	146	0.09-0.23 ppm Wet wt	0.02+/-0.02 ppm S.E. Wet wt Arithmetic	Detected in 2 of 14 composite samples. One composite collected 1977 with 3.33 ppm DDE and 0.57 ppm DDD excluded from tabulation because site had been sprayed (0.84 kg/ha DDT) in 1974. 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Ruff
PHILOMACHUS PUGNAX

Tissue	Cases Exposure Route	Range	Mean	General Information
8526 Muscle	10	0.02-0.58 ppm Wet wt	0.12+/-0.17 ppm Wet wt	Adults, mean wt 97+/-5 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC
MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212				

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
8527 Eggs	a) 15 b) 3 c) 10	a) 46-516 ppb b) 158-220 ppb c) 29-210 ppb Wet wt	a) 295.7+/-127.3 ppb b) 196.0+/-33.3 ppb c) 93.9+/-57.7 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-EC
8528 Liver	a) 15 b) 3 c) 10	a) 31-424 ppb b) 17-59 ppb c) 17-55 ppb Wet wt	a) 94.2+/-95.3 ppb b) 35.7+/-21.4 ppb c) 36.1+/-15.8 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 liver fat 2.06-2.37%. Finland, Baltic Sea GC-EC
8529 Muscle	a) 14 b) 3 c) 10	a) 116-713 ng/g b) 135-420 ng/g c) 51-234 ng/g Wet wt	a) 390.5+/-168.0 ng/g b) 276.0+/-142.5 ng/g c) 127.0+/-64.6 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				

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Sandpiper, wood
TRINGA GLAREOLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8530 Muscle	5	0.04-0.18 ppm Wet wt	0.12+/-0.07 ppm Wet wt	Mean wt 59+/-4 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Seal, Arctic ringed
PHOCA HISPIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
8531 Adipose	a) 9 b) 15 c) 12 d) 16	a) Not given b) Not given c) Not given d) Not given	a) 0.55+/-0.21 ug/g b) 0.33+/-0.14 ug/g c) 1.10+/-0.51 ug/g d) 0.78+/-0.56 ug/g Wet wt	a) Females, 1972 b) Females, 1981 c) Males, 1972 d) Males, 1981 Samplings 5-6/72 and 3 and 5/81. Blubber. Significant difference between a), b) $p<0.01$. Canada, Holman Island, NWT GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; ADIPOSE TISSUE; SEALS; POLYCHLORINATED BIPHENYLS; DDT; PESTICIDES; WATER POLLUTION; CANADA
Addison, R.F.; Zinck, M.E.; Smith, T.G. 1986 Environmental Science and Technology 20:253-256

Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8532 Adipose	a) 8 b) 9	a) 16.9-36.2 ug/g b) 4.3-19.3 ug/g Lipid wt	a) 26.76 ug/g b) 10.09 ug/g Lipid wt	a) 1-22 yr old males b) 6-31 yr old females Blubber lipid. Mean for both sexes was 17.9+/-10 ug/g Collected 11/72, during breeding season. Separate means calculated by extractor. England, Farne Islands GLC/microwave plasma detection

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Seal, gray
HALICHOERUS GRYPUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8533 Liver	a) 2 b) 2 c) 2 d) 2 e 2	a) 2.6-5.5 ug/g b) 6.1-9.1 ug/g c) 1.0-5.1 ug/g d) 3.2-3.5 ug/g e) 4.8-5.7 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 7.1 ug/g b) Fetus and 12 yr old mother, blubber levels 12.5 ug/g c) 13 yr old mother (level given as DDE) and fetus d) Fetus and 16 yr old mother, blubber level 7.3 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

Shad
DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8534 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
8535 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) 0.04 ug/g b) 0.15 ug/g c) 0.05 ug/g d) 0.10 ug/g e) 0.05 ug/g f) 0.16 ug/g g) 0.10 ug/g h) 0.12 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. 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
8536 Body, whole	377	8-104 ug/kg Wet wt	54 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
8537 Adipose		0.042-3.226 ppm Fat basis	1.048 ppm Fat basis	Samples purchased from Baghdad meat markets in 1983. 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Snake, water
NATRIX sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8538 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

Snipe, common
GALLINAGO GALLINAGO

Tissue	Cases Exposure Route	Range	Mean	General Information
8539 Muscle	5	Not detected-0.04 ppm Wet wt	0.02+/-0.02 ppm Wet wt	Adults, mean wt 98+/-7 g. Shot 6/76-7/76. Detection limit 20 pg. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8540 Muscle	a) 13 b) 25 c) 25 d) 25 e) 49 f) 49 g) 28 h) 21 i) 24	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) 0.077+/-0.277 ppb b) 0.160+/-0.473 ppb c) 0.240+/-0.436 ppb d) 0.160+/-0.625 ppb e) 0.388+/-1.92 ppb f) 2.84+/-9.13 ppb g) 0.107+/-0.567 ppb h) 0.095+/-0.301 ppb i) 0.417+/-0.776 ppb Wet wt	a) 1972 b) 1973 c) 1974 d) 1975 e) 1978 f) 1979 g) 1981 h) 1982 i) 1983 Dates 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8541 Muscle	10	0.00-0.12 ppm Wet wt	0.03+/-0.03 ppm Wet wt	8 adults, 2 juveniles, mean wt 81+/-8 g. Shot 7/76. Detection limit 20 pg. Sweden, Vastergotland, Vanersborg GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8542 Body		Not applicable	0.15 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
8543 Body		Not applicable	0.262 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Sunfish
LEPOMIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8544 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.07 ug/g b) 0.03 ug/g c) 0.09 ug/g d) 0.65 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. 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
8545 Carcass	21	0.27-0.88 ppm Wet wt	0.57+/-0.30 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in all 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
8546 Carcass	23	0.10-0.40 ppm Wet wt	0.04+/-0.02 ppm S.E. Wet wt Arithmetic	Detected in 4/23 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. 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

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
8547 Eggs	6	0.01-0.05 ppm Wet wt	0.02+/-0.01 ppm Wet wt	4 adults, 2 juveniles, mean wt 345+/-31 g. Shot 6/76-7/76 and 6/77-9/77. Sweden, Norrbotten, Gallivare GC-EC
MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212				

Tench
TINCA TINCA

Tissue	Cases Exposure Route	Range	Mean	General Information
8548 Muscle	1	Not applicable	6.3 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				

Thrush, song
TURDUS PHILOMELOS

Tissue	Cases Exposure Route	Range	Mean	General Information
8549 Muscle	1	Not detected	Not detected	Adult, wt 63 g. Shot 7/76. Detection limit 20 pg. Sweden, Vastergotland, Vanersborg GC-EC
MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212				

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
8550 Eggs	11	120-393 ppb Wet wt	216.2+/-81.0 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

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Trout, Bothnian Bay
SALMO TRUTTA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8551 Liver	11	54-110 ppb Wet wt	76.7+/-17.9 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, Baltic Sea GC-EC
8552 Muscle	11	47-282 ppb Wet wt	191.6+/-75.1 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-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, sea
SALMO OCLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8553 Muscle	5	1.3-2.6 mg/kg Fat basis	1.8 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

Vulture, Bengal
GYPS BENGALENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8554 Adipose	3	53.051-143.92 ppm Wet wt	87.945 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8555 Blood, plasma	3	0.292-0.685 ppm Wet wt	0.479 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50

Vulture, Bengal
GYPS BENGALENSIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8556 Brain	3	0.644-2.535 ppm Wet wt	1.204 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8557 Heart	3	Not given	2.807 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8558 Kidney	3	Not given	3.380 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8559 Liver	3	Not given	1.919 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8560 Lung	3	Not given	0.900 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8561 Muscle	3	Not given	3.772 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8562 Spleen	3	Not given	2.498 ppm Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
8563 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.135 mg/kg b) 0.652 mg/kg c) 0.203 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
8564 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

Water boatman (Corixidae)
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8565 Body		Not given	32.164 ug/g Wet wt	Huntsville Spring Branch, mile 3. Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Whale, beluga
DELPHINAPTERUS LEUCAS

Tissue	Cases Exposure Route	Range	Mean	General Information
8566 Adipose	2	76.08+/-6.85-103.75+/-9.34 ug/g Wet wt	Not given	Blubber from beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
8567 Kidney	3	0.45+/-0.04-3.38+/-0.30 ug/g Wet wt	Not given	From beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
8568 Liver	3	0.32+/-0.03-2.54+/-0.23 ug/g Wet wt	Not given	From beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
8569 Lung	2	0.32+/-0.03-0.82+/-0.07 ug/g Wet wt	Not given	From beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
8570 Milk	1	Not applicable	2.04+/-0.16 ug/g Wet wt	From beached, dead female, part of group of 4 animals drifting ashore between 11/83 and 12/84. Mean of replicate analyses. Canada, Saint Lawrence Estuary GC/MS

ENVIRONMENTAL EXPOSURE; AQUATIC; WHALES; MAMMALS; CANADA; POLYCHLORINATED BIPHENYLS; DDE; DDT; ADIPOSE TISSUE; LIVER; LUNGS; KIDNEYS; MILK; PESTICIDES; INDUSTRIAL CHEMICALS; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS
Masse, R.; Martineau, D.; Tremblay, L.; Beland, P. 1986 *Archives of Environmental Contamination and Toxicology* 15:567-579

Whimbrel
NUMENIUS PHAEOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8571 Muscle	4	0.08-0.11 ppm Wet wt	0.10+/-0.02 ppm Wet wt	Adults, mean wt 350+/-42 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare GC-EC

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

DDT, total (No postings in CHEMLINE).
C14-H9-Cl5
MW 354.50
Willet
CATOPTROPHORUS SEMIPALMATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8572 Carcass	7	Not applicable	0.05 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

Worms, Tubificidae

Tissue	Cases Exposure Route	Range	Mean	General Information
8573 Body		a) Not given b) Not given	a) 4.016 ug/g b) 605.018 ug/g Wet wt	a) Huntsville Spring Branch, mile 6 b) Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Decadiene (No postings in CHEMLINE).
C10-H18
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
8574 Body		Not given	2.8 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

Decane
124-18-5
C10-H22
MW 142.3, MP -29.7 C, BP 174.1 C, VP 1 mm Hg at 16.5 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
8575 Body		Not given	2.5 ppb Wet wt	The Rigolets, Navigable Channels 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
8576 Body		Not given	21 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

Decane, methyl-
61193-21-3
C11-H24

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
8577 Body		Not given	24 ppb Wet wt	The Rigolets, Navigable Channels 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

Decyl alcohol (8 CI); 1-Decanol (9 CI)
112-30-1
C10-H22-O
MW 158.28, BP 232.9 C at 760 mm Hg, VP 1 mm Hg at 69.5 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
8578 Body		Not given	4.0 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

Dibenzo(b,e)(1,4)dioxin, heptachloro-
37871-00-4
C12-H-Cl7-O2
MW 425.28

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8579 Adipose	a) 16 b) 4 c) 6	a) Not detected-142 ppt b) Not detected-25 ppt c) Not detected-54 ppt	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. Detection limits a) 10-20 ppt, c) 5 ppt, 10 ppt. Levels for specific isomers also given. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
8580 Liver	3	13-34 ppt	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. Levels for specific isomers also given 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

Dibenzo(b,e)(1,4)dioxin, heptachloro-
37871-00-4
C12-H-Cl7-O2
MW 425.28
Swine
SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8581 Adipose	3	Not detected-71 ppt	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in swine production. Pentachlorophenol contamination in 2/3 samples. Detection limits 10 ppt. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
8582 Liver	5	Not detected (<5-10)-9 ppt	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in swine 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

Dibenzo(b,e)(1,4)dioxin, hexachloro-
34465-46-8
C12-H2-Cl6-O2
MW 390.84
Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8583 Adipose	a) 16 b) 4 c) 6	a) Not detected-67 ppt b) 9-21 ppt c) Not detected-8 ppt	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. Detection limits a) 10-20 ppt, c) 5-10 ppt. Levels for specific isomers also given. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
8584 Liver	3	Not detected (<5-17 ppt	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. Levels for specific isomers also given 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

Dibenzo(b,e)(1,4)dioxin, hexachloro-
34465-46-8
C12-H2-Cl6-O2
MW 390.84

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8585 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 394+/-97 ppt b) 906+/-538 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.876 ng/g, group doses were 2.154, 2.601 ug, respectively. Isomers in mixture were 1,2,3,4,7,8-and 1,2,3,6,7,8-. GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8586 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1550+/-765 ppt b) 1206+/-1094 ppt c) 2487+/-1306 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 4.585 ng/g, group doses were 2.630, 4.758, 8.151 ug, respectively. Includes 1,2,3,6,7,8- and 1,2,3,4,7,8-isomers. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Swine
SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8587 Adipose	3	Not detected-5 ppt	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in swine production. Pentachlorophenol contamination in 2/3 samples. Detection limits 10 ppt. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS

(next page)

Dibenzo(b,e)(1,4)dioxin, hexachloro-
34465-46-8
C12-H2-Cl6-O2
MW 390.84

Swine
SUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8588 Liver	5	Not detected (<0.10 ppt).	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in swine 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				

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8589 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS
BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.P. 1986 Chemosphere 15(5):537-548				

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8590 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) 23 pg/g b) 16 pg/g c) 102 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS

(next page)

Dibenzo(b,e)(1,4)dioxin, hexachloro-
34465-46-8
C12-H2-Cl6-O2
MW 390.84

Turtle, snapping
CHELYDRA SERPENTINA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8591 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 3.0 pg/g b) 6.4 pg/g c) 18 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzo(b,e)(1,4)dioxin, 1,2,3,4,6,7,8-heptachloro-
35822-46-9
C12-H-Cl7-O2

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8592 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2053+/-821 ppt b) 2182+/-2016 ppt c) 3865+/-2298 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 2.952 ng/g, group doses were 4.406, 7.971, 13.655 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8593 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzo(b,e)(1,4)dioxin, 1,2,3,4,6,7,8-heptachloro-
35822-46-9
C12-H-Cl7-O2
Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8594 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) 2.3 pg/g b) 17 pg/g c) 3.7 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS
8595 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 4.5 pg/g b) 4.0 pg/g c) 3.7 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 10 pg/g. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzo(b,e)(1,4)dioxin, 1,2,3,7,8-pentachloro-
40321-76-4
C12-H3-Cl5-O2
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8596 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 178+/-39 ppt b) 216+/-113 ppt c) 512+/-143 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.217 ng/g, group doses were 1.324, 3.342 5.124 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Dibenzo(b,e)(1,4)dioxin, 1,2,3,7,8-pentachloro-
40321-76-4
C12-H3-Cl5-O2

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8597 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 150+/-15 ppt b) 282+/-121 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.217, ng/g, group doses were 0.535, 0.646 ug, respectively. GC/MS
DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533				

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8598 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS
BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548				

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8599 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) 63 pg/g b) 33 pg/g c) 104 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS

(next page)

Dibenso(b,e)(1,4)dioxin, 1,2,3,7,8-pentachloro-
40321-76-4
C12-H3-Cl5-O2
Turtle, snapping
CHELYDRA SERPENTINA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8600 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 12 pg/g b) 4.65 pg/g c) 22 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES

Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenso(b,e)(1,4)dioxin, 1,2,4-trichloro-
39227-58-2
C12-H5-Cl2-O2
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8601 Body	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 11.4+/-7.4 ug b) 2.6+/-2.8 ug c) 1.6+/-1.1 ug d) 0.1+/-0.1 ug Per fish	a) 5 d b) 15 d c) 35 d d) 70 d Days after single feeding of 38 ug. Residues in controls fed only fish oil averaged 2.7+/-1.3 ug/kg for all sample intervals measured. GC-EC

FISHES; DELIBERATE EXPOSURE; BODY; AQUATIC; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS

Niimi, A.J.; Oliver, B.G. 1986 Environmental Toxicology and Chemistry 5:49-53

Dibenzo(def,p)chrysene
191-30-0
C24-H14
MW 302.37, MP 162-164 C

Mussel
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8602 Body	a) 2 b) 1	a) Not given b) Not given	a) 4 ppb b) Trace 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

Dibenzo-p-dioxin, octachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, octachloro- (9 Cl)
3268-87-9
C12-Cl8-O2
MW 459.72

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8603 Adipose	a) 16 b) 4 c) 6	a) Not detected-238 ppt b) Not detected-67 ppt c) Not detected	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. Detection limits a) 10-20 ppt, c) 10 ppt, 10 ppt. Levels for specific isomers also given. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
8604 Liver	3	Not detected (<10-105 ppt	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

Dibenzo-p-dioxin, octachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, octachloro- (9 Cl)
3268-87-9
C12-Cl8-O2
MW 459.72

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8605 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1711+/-787 ppt b) 1298+/-607 ppt c) 576+/-368 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 1.940 ng/g, group doses were 5.826, 10.540, 18.056 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Swine
SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8606 Adipose	3	16-428 ppt	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in swine production. Pentachlorophenol contamination in 2/3 samples. Canada, Ontario, Quebec, Maritimes GC/MS; MS/MS
8607 Liver	5	Not detected (<5-10)-54 ppt	Not given	Samples, collected in 1980 from wholesale and retail outlets, originating from farms using wood shavings in swine 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

Dibenzo-p-dioxin, octachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, octachloro- (9 Cl)
3268-87-9
C12-Cl8-O2
MW 459.72
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8608 Adipose	a) 2 b) 4	a) Not given b) Not given c) Not given	a) 0.63 ng/g b) 2.4+/-0.3 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8609 Bile	a) 2 b) 2	a) Not given b) Not given	a) 8.6 ng/g b) 18.4 ng/g Wet wt	a) 24 hr exposure, 208 ng/L water b) 72 hr, 78 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting

FISHES; POLYCHLORINATED DIBENZODIOXINS; AQUATIC; BIOCONCENTRATION; METABOLISM; DELIBERATE EXPOSURE; BIOACCUMULATION; BILE; LIVER; SPLEEN; CECUM; KIDNEYS; MUSCLES; SKIN; ADIPOSE TISSUE
Muir, D.C.G.; Yarechewski, A.L.; Knoll, A.; Webster, G.R.B. 1986 Environmental Toxicology and Chemistry 5:261-272

Tissue	Cases Exposure Route	Range	Mean	General Information
8610 Body	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 3.4+/-3.3 ug b) 1.0+/-0.4 ug c) 0.6+/-0.3 ug d) 0.6+/-0.3 ug Per fish	a) 5 d b) 15 d c) 35 d d) 70 d Days after single feeding of 30 ug. Residues in controls fed only fish oil averaged 0.2+/-0.1 ug/kg for all sample intervals measured. GC-EC

FISHES; DELIBERATE EXPOSURE; BODY; AQUATIC; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
Niimi, A.J.; Oliver, B.G. 1986 Environmental Toxicology and Chemistry 5:49-53

Tissue	Cases Exposure Route	Range	Mean	General Information
8611 Cecum	a) 4 b) 4	a) Not given b) Not given	a) 0.3+/-0.1 ng/g b) 1.1+/-0.5 ng/g Wet wt	a) 24 hr exposure, 208 ng/L water b) 72 hr, 78 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8612 Kidney	a) 4 b) 4	a) Not given b) Not given	a) 0.2+/-0.1 ng/g b) 0.7+/-0.2 ng/g Wet wt	a) 24 hr exposure, 208 ng/L water b) 72 hr, 78 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting

(next page)

Dibenzo-p-dioxin, octachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, octachloro- (9 Cl)
3268-87-9
C12-Cl8-O2
MW 459.72

Trout, rainbow
SALMO GAIRDNERI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8613 Liver	a) 4 b) 4	a) Not given b) Not given	a) 0.4+/-0.3 ng/g b) 0.8+/-0.2 ng/g Wet wt	a) 24 hr exposure, 208 ng/L water b) 72 hr, 78 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8614 Muscle	a) 4 b) 4	a) Not given b) Not given	a) 0.04+/-0.04 ng/g b) 0.13+/-0.07 ng/g Wet wt	a) 24 hr exposure, 208 ng/L water b) 72 hr, 78 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8615 Skin	a) 4 b) 4 c) 4	a) Not given b) Not given c) Not given	a) <0.01 ng/g b) 0.23+/-0.1 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8616 Spleen	a) 4 b) 2	a) Not given b) Not given	a) 0.8+/-0.1 ng/g b) 0.3 ng/g Wet wt	a) 24 hr exposure, 208 ng/L water b) 72 hr, 78 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation countin-

FISHES; POLYCHLORINATED DIBENZODIOXINS; AQUATIC; BIOCONCENTRATION; METABOLISM; DELIBERATE EXPOSURE; BIOACCUMULATION; BILE; LIVER; SPLEEN; CECUM; KIDNEYS; MUSCLES; SKIN; ADIPOSE TISSUE
Muir, D.C.G.; Yarechewski, A.L.; Knoll, A.; Webster, G.R.B. 1986 Environmental Toxicology and Chemistry 5:261-272

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8617 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Canada, Ottawa River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzo-p-dioxin, octachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, octachloro- (9 Cl)
3268-87-9
C12-Cl8-O2
MW 459.72
Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8618 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) 34 pg/g b) 36 pg/g c) 17 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES

Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzo-p-dioxin, 1,2,3,4-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 1,2,3,4-tetrachloro- (9 Cl)
30746-58-8
C12-H4-Cl4-O2
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8619 Body	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 0.6+/-0.3 ug b) 0.4+/-0.1 ug c) 0.3+/-0.2 ug d) 0.2+/-0.1 ug Per fish	a) 5 d b) 15 d c) 35 d d) 70 d Days after single feeding of 30 ug. Residues in controls fed only fish oil averaged 0.3+/-0.1 ug/kg for all sample intervals measured. GC-EC

FISHES; DELIBERATE EXPOSURE; BODY; AQUATIC; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS

Niimi, A.J.; Oliver, B.G. 1986 Environmental Toxicology and Chemistry 5:49-53

Dibenzo-p-dioxin, 1,2,3,7,8,9-hexachloro- (8 CI); Dibenzo(b,e)(1,4)dioxin, 1,2,3,7,8,9-hexachloro- (9 CI)
19408-74-3
C12-H2-Cl6-O2
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8620 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 249+/-97 ppt b) 155+/-80 ppt c) 443+/-193 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.481 ng/g, group doses were 2.932, 7.400 11.347 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8621 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 115+/-44 ppt b) 163+/-45 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, the Netherlands. Isomer group concentration in food was 0.481 ng/g, group doses not given. GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8622 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 689+/-492 ppt b) 470+/-349 ppt c) 705+/-386 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 4.585 ng/g, group doses were 1.446, 2.616, 4.481 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Dibenso-p-dioxin, 1,3,6,8-tetrachloro- (8 CI); Dibenso(b,e)(1,4)dioxin, 1,3,6,8-tetrachloro- (9 CI)
33423-92-6
C12-H4-Cl4-O2
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8623 Bile	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 651.1 ng/g b) 1,855.0 ng/g c) 2,846 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8624 Cecum	a) 4 b) 4 c) 4	a) Not given b) Not given c) Not given	a) 18.0+/-8.5 ng/g b) 27.3+/-2.9 ng/g c) 59.5+/-25.1 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8625 Kidney	a) 4 b) 4 c) 2	a) Not given b) Not given c) Not given	a) 20.2+/-13.1 ng/g b) 29.6+/-10.6 ng/g c) 18.7 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8626 Liver	a) 4 b) 4 c) 4	a) Not given b) Not given c) Not given	a) 41.2+/-0.5 ng/g b) 83.2+/-21.2 ng/g c) 100.1+/-50.9 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8627 Muscle	a) 4 b) 4 c) 4	a) Not given b) Not given c) Not given	a) 3.5+/-1.2 ng/g b) 2.3+/-0.7 ng/g c) 2.9+/-1.6 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting
8628 Skin	a) 4 b) 4 c) 4	a) Not given b) Not given c) Not given	a) 9.5+/-4.0 ng/g b) 12.5+/-4.2 ng/g c) 15.6+/-4.7 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting

(next page)

Dibenzo-p-dioxin, 1,3,6,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 1,3,6,8-tetrachloro- (9 Cl)
33423-92-6
C12-H4-Cl4-O2
Trout, rainbow
SALMO GAIRDNERI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8629 Spleen	a) 4 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 6.3+/-3.3 ng/g b) 14.2 ng/g c) 18.1 ng/g Wet wt	a) 12 hr exposure, 130 ng/L water b) 24 hr, 290 ng/L c) 48 hr, 130 ng/L [14-C]-labeled compound in continuous-flow solutions (10-15 mL/min), fish wt 200-300 g. HPLC; Scintillation counting

FISHES; POLYCHLORINATED DIBENZODIOXINS; AQUATIC; BIOCONCENTRATION; METABOLISM; DELIBERATE EXPOSURE; BIOACCUMULATION; BILE; LIVER; SPLEEN; CECUM; KIDNEYS; MUSCLES; SKIN; ADIPOSE TISSUE
Muir, D.C.G.; Yarechewski, A.L.; Knoll, A.; Webster, G.R.B. 1986 Environmental Toxicology and Chemistry 5:261-272

Dibenzo-p-dioxin, 2,3-dichloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3-dichloro- (9 Cl)
29446-15-9
C12-H6-Cl2-O2
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8630 Body	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 2.3+/-0.7 ug b) 0.9+/-0.6 ug c) 0.1+/-0.1 ug d) 0.1+/-0.1 ug Per fish	a) 5 d b) 15 d c) 35 d d) 70 d Days after single feeding of 37 ug. Residues in controls fed only fish oil averaged 0.5+/-0.1 ug/kg for all sample intervals measured. GC-EC

FISHES; DELIBERATE EXPOSURE; BODY; AQUATIC; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
Niimi, A.J.; Oliver, B.G. 1986 Environmental Toxicology and Chemistry 5:49-53

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C
Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8631 Body	1	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected Saginaw Bay, 1979. Michigan GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Bass, white
MORONE CHRYSOPS

Tissue	Cases Exposure Route	Range	Mean	General Information
8632 Body	1	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected Lake Erie (Dunkirk Harbor), 1981. New York GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Bowfin
AMIA CALVA

Tissue	Cases Exposure Route	Range	Mean	General Information
8633 Body	1	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected Saginaw Bay, 1979. Michigan GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Buffalofish

Tissue	Cases Exposure Route	Range	Mean	General Information
8634 Body	1	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected Saginaw Bay, 1979. Michigan GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Bullfrog
RANA CATESBEIANA

Tissue	Cases Exposure Route	Range	Mean	General Information
8635 Adipose	a) 1 b) 1	a) Not applicable b) Not applicable	a) 68000+/-7120 ppt b) >14000 ppt	a) Medium female, 200-450 g b) Large male, 450-800 g, result outside of calibration range of instrument Collected in 1984 and 85 below industrial site, an area of known contamination. Arkansas, Rockey Branch Creek NIAPIMS

(next page)

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Bullfrog
RANA CATESBEIANA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8636 Liver	a) 2 b) 2 c) 2	a) 2390+/-279-3680+/-564 ppt b) 1130+/-3280-9800+/-983 ppt c) 1250+/-174-1260+/-122 ppt ppt=pg/g	a) Not given b) Not given c) Not given	a) Large females, 450-800 g b) Large males, 450-800 g c) Medium females, 200-450 g Collected in 1984 and 85 below industrial site, an area of known contamination. Arkansas, Rockey Branch Creek NIAPIMS
8637 Muscle	a) 2 b) 2 c) 2	a) 218+/-60-277+/-60 ppt b) 566+/-73-637+/-202 ppt c) 87+/-26-103+/-17 ppt ppt=pg/g	a) Not given b) Not given c) Not given	a) Large females, 450-800 g b) Large males, 450-800 g c) Medium females, 200-450 g Collected in 1984 and 85 below industrial site, an area of known contamination. Arkansas, Rockey Branch Creek NIAPIMS
8638 Ovary	a) 2 b) 2	a) 7460+/-1440-10400+/-5370 ppt b) 2700+/-340-2830+/-998 ppt ppt=pg/g	a) Not given b) Not given	a) Large females, 450-800 g b) Medium females, 200-450 g Collected in 1984 and 85 below industrial site, an area of known contamination. Arkansas, Rockey Branch Creek NIAPIMS
8639 Oviduct	a) 2 b) 2	a) 496+/-57-1100+/-154 ppt b) 148+/-22-2050+/-197 ppt ppt=pg/g	a) Not given b) Not given	a) Large females, 450-800 g b) Medium females, 200-450 g Collected in 1984 and 85 below industrial site, an area of known contamination. Arkansas, Rockey Branch Creek NIAPIMS
8640 Skin	a) 2 b) 1 c) 2	a) 364+/-66-661+/-134 ppt b) 1590+/-424-1710+/-854 ppt c) 217+/-34-637+/-100 ppt ppt=pg/g	a) Not given b) Not given c) Not given	a) Large females, 450-800 g b) Large males, 450-800 g, 2 samples from 1 frog c) Medium females, 200-450 g Collected in 1984 and 85 below industrial site, an area of known contamination. Arkansas, Rockey Branch Creek NIAPIMS

FROGS; AQUATIC; ENVIRONMENTAL EXPOSURE; MUSCLES; SKIN; LIVER; OVIDUCT; OVARIES; ADIPOSE TISSUE; INDUSTRIAL CHEMICALS; DIOXINS; WATER POLLUTION

Korfmacher, W.A.; Hansen, E.B.; Rowland, K.L. 1986 Chemosphere 15(2):121-126

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8641 Body	2	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected 1979, Saginaw Bay. Michigan GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8642 Body	a) 18 b) 1 c) 1	a) Not detected-46 ppt b) Not applicable c) Not applicable	a) 9 ppt b) 9 ppt c) 93 ppt	a) Collected from different sites in Saginaw Bay (Lake Huron) b) Collected from Muskegon Lake c) Collected from Tittabrawassee River In specimens from 12 additional Michigan lakes and rivers, residues not detected. Collections in a) 1979, 81, 83, in b-c), 1983. Minimum confirmable level=10 ppt. Great Lakes GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Tissue	Cases Exposure Route	Range	Mean	General Information
8643 Body		a) 0.3-0.4 pg/g b) 2.0-2.0 pg/g c) 2.2-2.8 pg/g d) Not given e) Not given f) Not given g) Not given h) Not given	a) Not given b) Not given c) Not given d) 200 pg/g e) 1000 pg/g f) 20 pg/g g) 28 pg/g h) 32 pg/g	a) 30 d, Control b) 30 d, 1 g East Coast fly ash c) 30 d, 5 g East Coast fly ash d) 25 d, extract of 1 g East Coast fly ash e) 25 d, extract of 5 g East Coast fly ash f) 30 d, 2 g Midwest fly ash g) 30 d, 5 g Midwest fly ash h) 30 d, 10 g Midwest fly ash Time of exposure, amount and source of fly ash. 22 isomers present in ash, only 1 bioaccumulates. None detected (at 1.0 ppt detection limit) in analyses before exposure. Gill lamellae swollen and edematous, extensive epithelial separation. Gill lamellae swollen and edematous, extensive epithelial separation GC/MS

BODY; FISHES; AQUATIC; DELIBERATE EXPOSURE; DIOXANES; CHLORINE ORGANIC COMPOUNDS; BIOACCUMULATION; FLY ASH; BIOAVAILABILITY; INDUSTRIAL EMISSIONS; INDUSTRIAL POLLUTION; WATER POLLUTION; POWER PLANTS
Kuehl, D.W.; Cook, P.M.; Batterman, A.R.; Lothenbach, D.B.; Butterworth, B.C.; Johnson, D.L. 1985 Chemosphere 14(5):427-437

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Catfish
ICTALARUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8644 Body	a) 17 b) 1	a) Not detected-102 ppt b) Not applicable	a) 28 ppt b) Not detected	a) Collected from different locations, Lake Huron, Saginaw Bay, MI b) Collected in Lake Erie, at Dunkirk Harbor, NY 1979, 81, 83. Minimum confirmable level=10 ppt. Great Lakes GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8645 Milk	6 Ingestion	a) Not detected b) Not detected c) 3 ppt d) 10-11 ppt e) 11-22 ppt f) 42-89 ppt	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Controls b) Fed 5 ppt (parts/trillion), 14 d c) Fed 15 ppt, 14 d d) Fed 50 ppt, 14d e) Fed 150 ppt, 3-14 d f) Fed 500 ppt, 3-21 d Detection limit 2 ppt. Fed 2,4,5-T containing TCDD. Values corrected for approximately 80% recovery. Following 21 d at 500 ppt, with no TCDD in diet, residues declined to 14-19 ppt after 90 d. GC/MS

CATTLE; MILK; MILK FAT; POLYCHLORINATED DIBENZODIOXINS; DELIBERATE EXPOSURE; TERRESTRIAL; PESTICIDE RESIDUES
Jensen, D.J.; Hummel, R.A. 1982 Bulletin of Environmental Contamination and Toxicology (29):440-446

Tissue	Cases Exposure Route	Range	Mean	General Information
8646 Milk, fat		<17 ppt Wet wt	Not given	Six samples collected from dairy farms adjacent to a contaminated waste dump. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8647 Milk, fat	6 Ingestion	a) Not detected b) 10-13 ppt c) 18-26 ppt d) 99 ppt e) 180 ppt f) 780 ppt	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) Controls b) Fed 5 ppt (parts/trillion), 14 d c) Fed 15 ppt, 14 d d) Fed 50 ppt, 14 d e) Fed 150 ppt, 14 d f) Fed 500 ppt, 21 d Measured in cream. Detection limit 2-5 ppt. Fed 2,4,5-T containing TCDD. Values corrected for approximately 80% recovery. Residue was proportional to fat content of milk or cream. GC/MS
CATTLE; MILK; MILK FAT; POLYCHLORINATED DIBENZODIOXINS; DELIBERATE EXPOSURE; TERRESTRIAL; PESTICIDE RESIDUES Jensen, D.J.; Hummel, R.A. 1982 Bulletin of Environmental Contamination and Toxicology (29):440-446				

Cormorant, double-crested
PHALACROCORAX AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8648 Body		Not given	4 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 DIBENZO-FURANS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED BIPHENYLS Stalling, D.L.; Norstrom, R.J.; Smith, L.M.; Simon, M. 1985 Chemosphere 14(6/7):627-643				

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8649 Body	1	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected 1979, Saginaw Bay. Michigan GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12 H4-Cl4-O2
MW 322, MP 305 C

Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8650 Adipose	a) 2 b) 3 c) 1	a) 104-144 ppt b) 30-42 ppt c) <15 ppt Wet wt	a) 124 ppt b) Not given c) Not applicable Wet wt	a) Samples collected from canals inside contaminated waste dump b) Samples collected from canals outside dump c) Reference sample from distant location Mean calculated. Samples also included muscle. Netherlands, Amsterdam HPLC; GC/MS
8651 Liver	2	96-97 ppt Wet wt	96.5 ppt Wet wt	Samples collected from canals inside contaminated waste dump. Mean calculated. Netherlands, Amsterdam HPLC; GC/MS
8652 Muscle	a) 2 b) 3 c) 1	a) 104-144 ppt b) 30-42 c) <15 ppt Wet wt	a) 124 ppt b) Not given c) Not applicable Wet wt	a) Samples collected from canals inside contaminated waste dump b) Samples collected from canals outside dump c) Reference sample from distant location Mean calculated. Samples also included fat. Netherlands, Amsterdam HPLC; GC/MS

[illegible] COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
[illegible], S. Olie, K. 1985 Chemosphere 14(6/7):919-924

[illegible]
[illegible]GUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
[illegible] Body	a) 2 b) 2 c) 2 d) 5	a) 16-29 ppt b) 15-22 ppt c) Not detected d) Not detected-19 ppt Wet wt	a) 23 ppt b) 19 ppt c) Not detected d) 12 ppt Wet wt	a) Collected from Lake St. Pierre, St. Lawrence River b) Kamouraska, St. Lawrence River c) Richelieu River (tributary of St. Lawrence) d) Eastern Lake Ontario Collected 1982-83, avg wt 2.1 kg, avg length 960 mm. Average lipid content was 24%. Detection limit 2 ppt. Great Lakes region GC/MS

[illegible]INDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y., Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenso-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenso(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8654 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 94+/-108 ppt b) 53+/-32 ppt c) 116+/-67 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.047 ng/g, group doses were 0.286, 0.721, 1.105 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8655 Eggs				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION
Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Tissue	Cases Exposure Route	Range	Mean	General Information
8656 Eggs		a) Not given b) Not given	a) 141 ng/kg (pptr) b) 90 ng/kg (pptr)	a) Lake Huron b) Lake Ontario Subsamples of 10 randomly collected, homogenized fresh eggs were pooled for analysis at each site. Obtained 1983. 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

Dibenso-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenso(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8657 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 81+/-30 ppt b) 84+/-29 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.047 ng/g, group doses were 0.115, 0.139 ug, respectively. GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
8658 Body		a) 12-59 ng/kg b) Not given	a) Not given b) 21 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

Minnow
CYPRINUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8659 Liver	a) 1 b) 1	a) Not applicable b) Not applicable	a) 593 ppt b) <20 ppt Wet wt	a) Sample collected from canals inside contaminated waste dump b) Sample collected from canals outside dump. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
8660 Body, whole		a) 8,500-2,500 ppt b) 28,000-12,500 ppt Wet wt	a) Not given b) Not given	a) Outdoor pond, 10-50 d after 53.7 ppt added b) Model ecosystem, 5-40 d after 61.36 ppt added Estimated from graphs. Scintillation counting

BODY; AQUATIC; FISHES; DELIBERATE EXPOSURE; HERBICIDES; BIOACCUMULATION; BIOLOGICAL MONITORING
Tsushimoto, G.; Matsumura, F.; Sago, R. 1982 Environmental Toxicology and Chemistry 1:61-68

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
8661 Liver	a) 4 b) 1	a) <10-5237 ppt b) <68 ppt Wet wt	a) Not given b) Not applicable	a) Samples collected from contaminated waste dump included woodmouse (APODEMUS SYLVATICUS) and shrew (SORAX ARANAEUS) b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Perch, white
MORONE AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
8662 Body	1	Not applicable	25 ppt	Collected in Lake Ontario, Chaumont Bay, 1981. Great Lakes GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Dibenso-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenso(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
8663 Body	9	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected: Saginaw Bay (2 sites, 1 and 6 specimens), Lake Ontario (Chaumont Bay) and Lake Erie (Dunkirk Harbor, NY). 1979, 1981. Michigan; New York GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Pheasant
PHASIANUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8664 Liver	a) 8 b) 2	a) <6-33 ppt b) <15-<19 ppt Wet wt	a) Not given b) Not given	a) Samples collected from contaminated waste dump b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8665 Liver	a) 1 b) 3 c) 1	a) Not applicable b) <50-103 ppt c) Not applicable Wet wt	a) 584 ppt b) Not given c) <9 ppt Wet wt	a) Sample collected from canals inside contaminated waste dump b) Samples collected from canals outside contaminated waste dump c) Reference sample from distant location. Netherlands, Amsterdam HPLC; GC/MS
8666 Muscle	a) 1 b) 2 c) 2	a) Not applicable b) Not applicable c) <13-<14 ppt Wet wt	a) 21 ppt b) <30 ppt c) Not given Wet wt	a) Sample collected from canals inside contaminated waste dump b) Samples collected from canals outside contaminated waste dump c) Reference samples from distant location. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Dibenso-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenso(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Rabbit
ORYCTOLAGUS CUNICULUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8667 Liver	a) 14 b) 5	a) <10-50 ppt b) <2-<50 ppt Wet wt	a) Not given b) Not given	a) Samples collected from contaminated waste dump b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Salmon, chinook
ONCORHYNCHUS TSHAWYFSCHA

Tissue	Cases Exposure Route	Range	Mean	General Information
8668 Body	1	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected Lake Erie (Dunkirk Harbor), 1981. New York GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Salmon, coho
ONCORHYNCHUS KISUTCH

Tissue	Cases Exposure Route	Range	Mean	General Information
8669 Body	1	Not applicable	35 ppt	Collected in Lake Erie at Salmon River, 1983. Not detected in other specimens collected at Lake Erie, Lake Huron, Lake Michigan, and Lake Ontario. Minimum confirmable level=10 ppt. Great Lakes GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Sheepshead

Tissue	Cases Exposure Route	Range	Mean	General Information
8670 Body	1	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected Lake Erie (Dunkirk Harbor), 1981. New York GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Sucker
CATOSTOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8671 Body	14	Not detected	Not detected	Minimum confirmable level=10 ppt. Collections at: Various sites of Saginaw Bay (9 specimens), Lake Michigan (Muskegon) (1 specimen), Lake Ontario (Wilson, NY) (2 specimens), Lake Erie (Cattaragus Creek, Eighteen Mile Creek) (2 specimens). 1979, 1981, 1983. Michigan; New York GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Tern, Forster's
STERNA FORSTERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8672 Eggs		a) Not given b) Not given	a) 47+/-35 ng/kg b) 9+/-7 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				

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Trout, brown
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
8673 Body	a) 1 b) 1	a) Not applicable b) Not applicable	a) 8 ppt b) Not detected	a) Collected in Lake Ontario, Wilson, NY 1981 b) Collected in Lake Erie, Dunkirk Harbor, NY 1981 Minimum confirmable level=10 ppt. Great Lakes GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
8674 Body	a) 1 b) 1 c) 1 d) 1	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) Not detectable b) 6 ppt c) Not detectable d) 46 ppt	a) Lake Michigan, 1983 b) Lake Huron, 1983 c) Lake Superior, 1983 d) Lake Ontario, 1981 Minimum confirmable level=10 ppt. Great Lakes GC-EC
BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630				

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8675 Adipose		10.05+/-6.39-3.88+/-1.96 ng/g	Not given	0 and 139 days after exposure for 6 hr at 107 ng/L. Range of means. Michigan GC/MS
FISHES; DELIBERATE EXPOSURE; BODY; MUSCLES; LIVER; AQUATIC; CHLORINE ORGANIC COMPOUNDS; BIOCONCENTRATION; MICHIGAN Branson, D.R.; Takahashi, I.T.; Parker, W.M.; Blau, G.E. 1985 Environmental Toxicology and Chemistry 4:779-778				

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 Cl); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 Cl)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8676 Body	1	Not applicable	21 ppt	Collected in Lake Ontario, Wilson, NY, 1981. Great Lakes GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Tissue	Cases Exposure Route	Range	Mean	General Information
8677 Body, whole		1.01+/-0.09-0.65+/-0.10 ng/g S.E.	Not given	2 hr and 136 d, peak of 2.58+/-0.06 ng/g (S.E.) at 6 hr. Range of means. Treatment involved 6-hr static water uptake exposure (107 ng/L) followed by 139-d flow through depuration period. Uptake and depuration rate constants were 108+/-3 ml water/g whole fish/d and 0.012+/-0.001/d, respectively. Michigan
8678 Liver		11.62+/-1.80-3.71+/-0.16 ng/g	Not given	0 and 136 days after exposure for 6 hr at 107 ng/L. Trough on 2 64 of 1.68+/-0.51 ng/g. Range of means. Michigan GC/MS
8679 Muscle		1.32+/-0.38-0.26+/-0.10 ng/g	Not given	0 and 134 days after exposure for 6 hr at 107 ng/L. Range of means. Bioconcentration factor was 4,635. Michigan GC/MS

FISHES; DELIBERATE EXPOSURE; BODY; MUSCLES; LIVER; AQUATIC; CHLORINE ORGANIC COMPOUNDS; BIOCONCENTRATION; MICHIGAN
Branson, D.R.; Takahashi, I.T.; Parker, W.M.; Blau, G.E. 1985 Environmental Toxicology and Chemistry 4:779-776

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8680 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzo-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8681 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) 474 pg/g b) 232 pg/g c) 370 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East [illegible], 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS
8682 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 107 pg/g b) 32 pg/g c) 74 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from [illegible], 6/85. Live wt 7.1 kg, female, age 14 yr. Detection [illegible] pg/g St. Lawrence River GC/MS

[illegible] TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; [illegible]; POLY[illegible] DIBENZOD OXINS; POLYCHLORINATED [illegible] WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
[illegible] Lau, B.P.Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, [illegible] Glerthy, J.F. 1986 Chemosphere 15(5):537-548

Walleye

Tissue	Cases Exposure Route	Range	Mean	General Information
8683 Body	2	Not detected	Not detected	Minimum confirmable level=10 ppt. Collected Saginaw Bay and the Clinton River, 1983 Michigan GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Whitefish

Tissue	Cases Exposure Route	Range	Mean	General Information
8684 Body	7	Not detected	Not detected	Minimum confirmable level=10 ppt. Collections at: Various sites of Saginaw Bay (3 specimens), Lake Michigan (Empire), Lake Michigan (Garden Island), Green Bay. 1979, 1983. Michigan; New York GC-EC

BODY; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; GREAT LAKES; DIOXANES; BIOACCUMULATION; MEASUREMENT METHODS; MICHIGAN; NEW YORK
Fehringer, N.V.; Walters, S.M.; Kozara, R.J.; Schneider, L.F. 1985 Journal of Agricultural and Food Chemistry 33:626-630

Dibenso-p-dioxin, 2,3,7,8-tetrachloro- (8 CI); Dibenso(b,e)(1,4)dioxin, 2,3,7,8-tetrachloro- (9 CI)
1746-01-6
C12-H4-Cl4-O2
MW 322, MP 305 C

Worm

Tissue	Cases Exposure Route	Range	Mean	General Information
8685 Body	9	<15-889 ppt Wet wt	Not given	Samples collected from contaminated waste dump included LUMBRICUS RUBELLUS (earthworm), DENDROBAENA RUBIDA, and ALLOLOBOPHORA ROSEA. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Dibenso-p-dioxin, 2,7-dichloro- (8 CI); Dibenso(b,e)(1,4)dioxin, 2,7-dichloro- (9 CI)
33857-26-0
C12-H6-Cl2-O2
MW 253.08, MP 209-210 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8686 Body	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 23.2+/-15.8 ug b) <0.2 ug c) <0.2 ug d) <0.2 ug Per fish	a) 5 d b) 15 d c) 35 d d) 70 d Days after single feeding of 82 ug. Residues in controls fed only fish oil averaged 4.2+/-0.9 ug/kg for all sample intervals measured. GC-EC

FISHES; DELIBERATE EXPOSURE; BODY; AQUATIC; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
Niimi, A.J.; Oliver, B.G. 1986 Environmental Toxicology and Chemistry 5:49-53

Dibenzofuran, heptachloro-
38998-75-3
C12-H-Cl7-O
Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8687 Adipose	1	Not given	34.2 ppt	Sample, collected in 1980, from wholesale or retail outlet, originated on Canadian farm using wood shavings in poultry production. Isomers included 1,2,3,4,6,7,8- and 1,2,3,4,6,8,9-hexachlorodibenzofuran. Canada GC/MS; MS/MS
8688 Liver	1	Not given	68.4 ppt	Chicken raised in contact with PCP-contaminated wood shavings. Isomers included 1,2,3,4,6,7,8- and 1,2,3,4,6,8,9-hexachlorodibenzofurans. Canada 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

Dibenzofuran, hexachloro-
55684-94-1
C12-H2-Cl6-O
MW 376.9, BP 230-260 C at 8 mm Hg
Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8689 Adipose	1	Not given	20.1 ppt	Sample, collected in 1980, from wholesale or retail outlet, originated on Canadian farm using wood shavings in poultry production. Isomers included 1,2,3,6,7,8-, 1,2,4,6,8,9-, and 1,2,3,6,7,8- hexachlorodibenzofuran. Canada GC/MS; MS/MS
8690 Liver	1	Not given	35.5 ppt	Chicken raised in contact with PCP-contaminated wood shavings. Isomers included 1,3,4,6,7,8-, 1,2,4,6,8,9-, and 1,2,3,6,7,8-hexachlorodibenzofurans. Canada 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

Dibenzofuran, hexachloro-
55684-94-1
C12-H2-Cl6-O
MW 376.9, BP 230-260 C at 8 mm Hg

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
8691 Liver	a) 4 b) 1	a) Not detected-584 ppt b) Not detected Wet wt	a) Not given b) Not applicable	a) Samples collected from contaminated waste dump included woodmouse (APODEMUS SYLVATICUS) and shrew (SORAX ARANAEUS) b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Rabbit

Tissue	Cases Exposure Route	Range	Mean	General Information
8692 Liver	a) 14 b) 5	a) Not detected-1081 ppt b) Not detected-132 ppt Wet wt	a) Not given b) Not given	a) Samples collected from contaminated waste dump b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8693 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2443+/-1191 ppt b) 2713+/-1968 ppt c) 5577+/-3195 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 3.640 ng/g, group doses were 2.011, 3.639, 6.233 ug, respectively. Includes 1,2,3,6,7,8- and 1,2,3,4,7,8-isomers. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Dibenzofuran, hexachloro-
55684-94-1
C12-H2-Cl6-O
MW 376.9, BP 230-260 C at 8 mm Hg

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8694 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS
BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548				

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8695 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) 890 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS
8696 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) 160 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS
BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548				

Dibenzofuran, hexachloro-
55684-94-1
C12-H2-Cl6-O
MW 376.9, BP 230-260 C at 8 mm Hg

Worm

Tissue	Cases Exposure Route	Range	Mean	General Information
8697 Body	9	Not detected-2694 ppt Wet wt	Not given	Samples collected from contaminated waste dump included LUMBRICUS RUBELLUS (earthworm), DENDROBAENA RUBIDA, and ALLOLOBOPHORA ROSEA. Detection limit not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Dibenzofuran, octachloro-
39001-02-0
C12-Cl8-O
Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8698 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 395+/-166 ppt b) 357+/-279 ppt c) 249+/-95 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.363 ng/g, group doses were 1.090, 1.972, 3.378 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8699 Body	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 0.6+/-0.5 ug b) 0.2+/-0.1 ug c) 0.2+/-0.1 ug d) 0.1+/-0.1 ug Per fish	a) 5 d b) 15 d c) 35 d d) 70 d Days after single feeding of 15 ug. Residues in controls fed only fish oil averaged 0.1+/-0.1 ug/kg for all sample intervals measured. GC-EC

FISHES; DELIBERATE EXPOSURE; BODY; AQUATIC; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
Niimi, A.J.; Oliver, B.G. 1986 Environmental Toxicology and Chemistry 5:49-53

Dibenzofuran, pentachloro-
30402-13-4
C12-H2-Cl5-O
Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8700 Adipose	a) 2 b) 3	a) 182-558 ppt b) 134-147 ppt Wet wt	a) 370 ppt b) Not given Wet wt	a) Samples collected from canals inside contaminated waste dump b) Samples collected from canals outside dump Mean calculated. Samples also included muscle. Netherlands, Amsterdam HPLC; GC/MS
8701 Liver	2	Not detected-169 ppt Wet wt	Not given	Samples collected from canals inside contaminated waste dump. Netherlands, Amsterdam HPLC; GC/MS
8702 Muscle	a) 2 b) 3	a) 182-558 ppt b) 134-147 ppt Wet wt	a) 370 ppt b) Not given Wet wt	a) Samples collected from canals inside contaminated waste dump b) Samples collected from canals outside dump Mean calculated. Samples also included fat. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
8703 Liver	a) 4 b) 1	a) 1408-23,097 ppt b) Not detected Wet wt	a) Not given b) Not applicable	a) Samples collected from contaminated waste dump included woodmouse (APODEMUS SYLVATICUS) and shrew (SORAX ARANAEUS) b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8704 Liver	a) 1 b) 3	a) Not applicable b) Not detected-1419 ppt Wet wt	a) 975 ppt b) Not given Wet wt	a) Sample collected from canals inside contaminated waste dump b) Samples collected from canals outside dump Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

(next page)

Dibenzofuran, pentachloro-
30402-15-4
C12-H2-Cl5-O

Pike, northern
ESOX LUCIUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8705 Muscle	a) 1 b) 2	a) Not applicable b) 263-266 ppt Wet wt	a) 154 ppt b) 265.5 ppt Wet wt	a) Sample collected from canals inside contaminated waste dump b) Samples collected from canals outside dump Detection limits not given. Mean calculated. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES, LIVER; MILK, NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Rabbit
ORYCTOLAGUS CUNICULUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8706 Liver	a) 14 b) 5	a) Not detected-1121 ppt b) Not detected-124 ppt Wet wt	a) Not given b) Not given	a) Samples collected from contaminated waste dump b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Worm

Tissue	Cases Exposure Route	Range	Mean	General Information
8707 Body	9	Not detected-300 ppt Wet wt	Not given	Samples collected from contaminated waste dump included LUMBRICUS RUBELLUS (earthworm), DENDROBAENA RUBIDA, and ALLOLOBOPHORA ROSEA. Detection limit not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Dibenzofuran, tetrachloro-
55722-27-5
C12-H4-Cl4-O
Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8708 Adipose	a) 2 b) 3	a) 4276-5193 ppt b) 41-47 ppt Wet wt	a) 4734.5 ppt b) Not given Wet wt	a) Samples collected from canals inside contaminated waste dump b) Samples collected from canals outside dump Mean calculated. Samples also included muscle. Netherlands, Amsterdam HPLC; GC/MS
8709 Liver	2	2350-2765 ppt Wet wt	2557.5 ppt wet wt	Samples collected from canals inside contaminated waste dump. Mean calculated. Netherlands, Amsterdam HPLC; GC/MS
8710 Muscle	a) 2 b) 3	a) 4276-5193 ppt b) 41-47 ppt Wet wt	a) 4734.5 ppt b) Not given Wet wt	a) Samples collected from canals inside contaminated waste dump b) Samples collected from canals outside dump Mean calculated. Samples also included fat. Netherlands, Amsterdam HPLC; GC/MS
CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924				

Minnow
CYPRINUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8711 Liver	a) 1 b) 1	a) Not applicable b) Not applicable	a) 5808 ppt b) Not detected Wet wt	a) Sample collected from canals inside contaminated waste dump b) Sample collected from canals outside dump. Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS
CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924				

Dibenzofuran, tetrachloro-
55722-27-5
C12-H4-Cl4-O

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
8712 Liver	a) 4 b) 1	a) Not detected-13,809 ppt b) Not detected Wet wt	a) Not given b) Not applicable	a) Samples collected from contaminated waste dump included woodmouse (APODEMUS SYLVATICUS) and shrew (SORAX ARANAEUS) b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS
CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924				

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8713 Liver	1	Not applicable	959 ppt Wet wt	Sample collected from canals inside contaminated waste dump. Netherlands, Amsterdam HPLC; GC/MS
8714 Muscle	1	Not applicable	41 ppt Wet wt	Sample collected from canals inside contaminated waste dump. Netherlands, Amsterdam HPLC; GC/MS
CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924				

Rabbit
ORYCTOLAGUS CUNICULUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8715 Liver	a) 14 b) 5	a) Not detected-168 ppt b) Not detected Wet wt	a) Not given b) Not applicable	a) Samples collected from contaminated waste dump b) Reference sample from distant location Detection limits not given. Netherlands, Amsterdam HPLC; GC/MS
CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924				

Dibenzofuran, tetrachloro-
55722-27-5
C12-H4-Cl4-O
Worm

Tissue	Cases Exposure Route	Range	Mean	General Information
8716 Body	9	Not detected-3020 ppt Wet wt	Not given	Samples collected from contaminated waste dump included LUMBRICUS RUBELLUS (earthworm), DENDROBAENA RUBIDA, and ALLOLOBOPHORA ROSEA. Detection limit not given. Netherlands, Amsterdam HPLC; GC/MS

CHLORINE ORGANIC COMPOUNDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; AQUATIC; LAND POLLUTION; WATER POLLUTION; POLYCHLORINATED DIBENZOFURANS; FISHES; ADIPOSE TISSUE; MUSCLES; LIVER; MILK; NETHERLANDS; BIOLOGICAL MONITORING; BODY; WORMS; MAMMALS; BIRDS; POLYCHLORINATED DIBENZODIOXINS
Heida, H.; Olie, K. 1985 Chemosphere 14(6/7):919-924

Dibenzofuran, 1,2,3,4,6,7,8-heptachloro-
67562-39-4
C12-H-Cl7-O
Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8717 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2990+/-1178 ppt b) 3418+/-2481 ppt c) 5961+/-4124 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 1.905 ng/g, group doses were 3.415, 6.719, 10.585 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8718 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzofuran, 1,2,3,4,6,7,8-heptachloro-
67562-39-4
C12-H-Cl7-O
Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8719 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) 69 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. 1 GC/MS
8720 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) 13 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzofuran, 1,2,3,4,7,8-hexachloro-
70648-26-9
C12-H2-Cl6-O
Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8721 Adipose				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION
Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Dibenzofuran, 1,2,3,4,7,8-hexachloro-
70648-26-9
C12-H2-Cl6-O
Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8722 Adipose				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION
Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Dibenzofuran, 1,2,3,4,7,8,9-heptachloro-
55673-89-7
C12-H-Cl7-O
Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8723 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 144+/-52 ppt b) 157+/-116 ppt c) 211+/-150 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 1.905 ng/g, group doses were 0.240, 0.435, 0.745 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Dibenzofuran, 1,2,3,6,7-pentachloro-
57117-42-7
C12-H3-Cl5-O
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8724 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 271+/-123 ppt b) 402+/-174 ppt c) 876+/-137 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.155 ng/g, group doses were 0.946, 2.387 3.661 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Dibenzofuran, 1,2,3,6,7,8-hexachloro-
57117-44-9
C12-H2-Cl6-O
Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8725 Adipose				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION
Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Dibenzofuran, 1,2,3,6,7,8-hexachloro-
57117-44-9
C12-H2-Cl6-O
Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8726 Adipose				*Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.*

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION
Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Dibenzofuran, 1,2,3,7,8-pentachloro-
57117-41-6
C12-H3-Cl5-O
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8727 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 359+/-101 ppt b) 542+/-228 ppt c) 1286+/-189 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.067 ng/g, group doses were 0.408, 1.031 1.581 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8728 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 92+/-18 ppt b) 194+/-116 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.067 ng/g, group doses were 0.165, 0.199 ug, respectively. GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Dibenzofuran, 1,2,3,7,8-pentachloro-
57117-41-6
C12-H3-Cl5-O
Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8729 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8730 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) 600 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS
8731 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) 100 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzofuran, 1,3,4,7,8-pentachloro-
58802-16-7
C12-H3-Cl5-O
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8732 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 529+/-282 ppt b) 958+/-456 ppt c) 1999+/-398 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.357 ng/g, group doses were 2.171. 5.480 8.401 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Dibenzofuran, 1,3,6,8-tetrachloro-
71998-72-6
C12-H4-Cl4-O
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8733 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 88+/-18 ppt b) 94+/-62 ppt c) 145+/-33 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.227 ng/g, group doses were 0.465, 1.173 1.799 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Dibenzofuran, 2,3,4,6,7-pentachloro-
57117-43-8
C12-H3-Cl5-O
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8734 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1226+/-265 ppt b) 1338+/-522 ppt c) 3544+/-600 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.388 ng/g, group doses were 2.365, 5.968 9.152 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS
DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533				

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8735 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 110+/-20 ppt b) 298+/-128 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.388 ng/g, group doses were 0.955, 1.153 ug, respectively. GC/MS
DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533				

Dibenzofuran, 2,3,4,6,7,8-hexachloro-
60851-34-5
C12-H2-Cl6-O
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8736 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 347+/-189 ppt b) 326+/-137 ppt c) 790+/-268 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.378 ng/g, group doses were 2.302, 5.180 8.910 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8737 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 913+/-332 ppt b) 2685+/-1560 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.378 ng/g, group doses were 0.930, 1.123 ug, respectively. GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8738 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1317+/-614 ppt b) 1332+/-1124 ppt c) 2286+/-1098 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 3.640 ng/g, group doses were 1.060, 1.918, 3.286 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Dibenzofuran, 2,3,4,7,8-pentachloro-
57117-31-4
C12-H3-Cl5-O
MW 330
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8739 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 266+/-116 ppt b) 360+/-102 ppt c) 898+/-173 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.205 ng/g, group doses were 1.247, 3.147 4.826 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Hamster

Tissue	Cases Exposure Route	Range	Mean	General Information
8740 Liver	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 702+/-92 ppt b) 1825+/-939 ppt	a) Fed for 59 d b) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.205 ng/g, group doses were 0.504, 0.608 ug, respectively. GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
8741 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 971+/-576 ppt b) 551+/-393 ppt c) 2373+/-1011 ppt	a) Fed for 34 d b) 59 d c) 99 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 3.530 ng/g, group doses were 0.615, 1.112, 1.906 ug, respectively. GC/MS

DELIBERATE EXPOSURE; RATS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; van Greevenbroek, M.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):509-518

Dibenzofuran, 2,3,4,7,8-pentachloro-
57117-31-4
C12-H3-Cl5-O
MW 330

Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8742 Adipose				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION

Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8743 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES

Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8744 Adipose				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION

Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Dibenzofuran, 2,3,4,7,8-pentachloro-
57117-31-4
C12-H3-Cl5-O
MW 330

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8745 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) 152 pg/g b) 95 pg/g c) 3020 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS
8746 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 29 pg/g b) 13 pg/g c) 480 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzofuran, 2,3,6,7-tetrachloro-
57117-39-2
C12-H4-Cl4-O
Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8747 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 211+/-43 ppt b) 191+/-112 ppt c) 261+/-61 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.130 ng/g, group doses were 0.792, 1.998 3.063 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Dibenzofuran, 2,3,7,8-tetrachloro-
51207-31-9
C12-H4-Cl4-O
MW 306

Cormorant, double-crested
PHALACROCORAX AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8748 Body		Not given	2 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

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8749 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 89+/-15 ppt b) 110+/-58 ppt c) 230+/-101 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.052 ng/g, group doses were 0.314, 0.793 1.216 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
8750 Body		a) Not detected-8 ng/kg b) Not given	a) Not given b) 4 ng/kg	a) Green Bay, 1978, detection limit 2 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

Dibenzofuran, 2,3,7,8-tetrachloro-
51207-31-9
C12-H4-Cl4-O
MW 306
Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8751 Adipose				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION
Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Turtle, Blandings
EMYDOIDEA BLANDINGI

Tissue	Cases Exposure Route	Range	Mean	General Information
8752 Liver	1	Not applicable	Not detected	Male, live wt 2.1 kg, collected from Ottawa River, 7/80. Detection limit 2 pg/g. Canada, Ottawa River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES
Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8753 Adipose				Review. Sources of polychlorodibenzo-p-dioxins and polychlorodibenzofurans and procedures for identification and quantification of isomers. Refers to levels found in aquatic organisms including fish and shellfish from areas in Vietnam that were heavily exposed to Agent Orange in the 1960s. Advocates the use of isomer-specific analyses for all toxic PCDD and PCDF isomers, and more extensive environmental monitoring.

REVIEW; ADIPOSE TISSUE; EGGS; AQUATIC; REPTILES; MAMMALS; BIRDS; ENVIRONMENTAL EXPOSURE; NEW YORK; GREAT LAKES; BALTIC SEA; MEASUREMENT METHODS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; BIOACCUMULATION; FISHES; WATER POLLUTION
Rappe, C. 1984 Environmental Science and Technology 18:78A-90A

Dibenzofuran, 2,3,7,8-tetrachloro-
51207-31-9
C12-H4-Cl4-O
MW 306

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8754 Adipose	3	a) Not applicable b) Not applicable c) Not applicable	a) 12 pg/g b) 6.0 pg/g c) 330 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. St. Lawrence River GC/MS
8755 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) Not detected b) Not detected c) 74 pg/g	a) Collected from Steele's Bay, Clayton, 6/84. Live wt 6.4 kg, male, age 16 yr b) Collected from Goose Bay East, Alexandria, 6/84. Live wt 3.6 kg, female, age 8 yr c) Collected from East Massena, 6/85. Live wt 7.1 kg, female, age 14 yr. Detection limit 2 pg/g. St. Lawrence River GC/MS

BIOINDICATORS; TURTLES; ENVIRONMENTAL EXPOSURE; ADIPOSE TISSUE; LIVER; BODY; FISHES; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS; WATER POLLUTION; AQUATIC; CANADA; NEW YORK; GREAT LAKES

Ryan, J.J.; Lau, B.P.-Y.; Hardy, J.A.; Stone, W.B.; O'Keefe, P.; Gierthy, J.F. 1986 Chemosphere 15(5):537-548

Dibenzofuran, 3,4,6,7-tetrachloro-
57117-40-5
C12-H4-Cl4-O

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
8756 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 292+/-33 ppt b) 161+/-76 ppt c) 237+/-53 ppt	a) Fed for 31 d b) 63 d c) 95 d Animals fed food containing fly ash from precipitator of municipal incinerator in Zaanstad, The Netherlands. Isomer group concentration in food was 0.120 ng/g, group doses were 0.729, 1.839 2.820 ug, respectively. In 1, wt and hair loss, liver wt=15.3 g, kidney wt=3.8 g, liver/body wt ratio=0.049, death on day 76 GC/MS

DELIBERATE EXPOSURE; GUINEA PIGS; HAMSTERS; TERRESTRIAL; INGESTION; LIVER; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS

van den Berg, M.; de Vroom, E.; Olie, K.; Hutzinger, O. 1986 Chemosphere 15(4):519-533

Dibenzofuran, 3,6-dichloro-
74918-46-4
C12-H6-Cl2-O
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8757 Body	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 1[illegible]+/-2.6 ug b) 6.3+/-4.9 ug c) 1.9+/-0.[illegible] ug d) 0.4+/-0.4 ug Per fish	a) 5 d b) 15 d c) 35 d d) 70 d Days after single feeding of 115 ug. Residues in controls fed only fish oil averaged 0.8+/-0.1 ug/kg for all sample intervals measured. GC-EC

FISHES; DELIBERATE EXPOSURE; BODY; AQUATIC; POLYCHLORINATED DIBENZODIOXINS; POLYCHLORINATED DIBENZOFURANS
Niimi, A.J., Oliver, B.G. 1986 Environmental Toxicology and Chemistry 5:49-53

Diethylamine, N-nitroso- (8 CI); Ethanamine, N-ethyl-N-nitroso- (9 CI)
55-18-5
C4-H10-N2-O
MW 102.14, BP 175-177 C
Crayfish
AUSTROPOTAMOBIUS PALLIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
8758 Genitals	Injection	0.8+/-0.2-0.38+/-0.15% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (2.95 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8759 Hemolymph	Injection	30.5+/-4.2-3.5+/-1.7% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (2.95 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8760 Hepatopancreas	Injection	5.4+/-1.2-3.7+/-0.6% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (2.95 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8761 Intestine	Injection	0.4+/-0.1-0.18+/-0.03% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (2.95 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8762 Muscle	Injection	8.4+/-0.8-1.7+/-0.35% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (2.95 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8763 Stomach	Injection	1.2+/-0.1-0.75+/-0.15% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (2.95 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting

DELIBERATE EXPOSURE; AQUATIC; NITROSAMINES; CRUSTACEANS; HEMOLYMPH; STOMACH; GENITALS; INTESTINES; MUSCLES; HEPATOPANCREAS
Alibaud, R.; Bontoux, J.; Rambaud, A.; Lautier, J.; Chanal, J.L. 1985 Xenobiotica 15(12):1103-1110

Dimethylamine, N-nitroso- (8 CI); Methanamine, N-methyl-N-nitroso- (9 CI)
62-75-9
C2-H6-N2-O
MW 74.1, BP 152 C

Crayfish
AUSTROPOTAMOBIUS PALLIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
8764 Genitals	Injection	1.8+/-0.4-0.07+/-0.03% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (1.05 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8765 Hemolymph	Injection	33.3+/-3.4-2.2+/-0.8% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (1.05 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8766 Hepatopancreas	Injection	5.0+/-0.7-0.4+/-0.1% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (1.05 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8767 Intestine	Injection	0.4+/-0.2-0.05+/-0.02% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (1.05 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8768 Muscle	Injection	8.7+/-1.9-0.5+/-0.1% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (1.05 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting
8769 Stomach	Injection	2.1+/-0.4-0.2+/-0.05% S.E. Range of means	Not given	Percent of [14-C]-labeled dose at 30 min and 24 hr after injection of 5 ug (1.05 uCi/animal) into thoracic metameres. Means of 6-12 animals. Scintillation counting

DELIBERATE EXPOSURE; AQUATIC; NITROSAMINES; CRUSTACEANS; HEMOLYMPH; STOMACH; GENITALS; INTESTINES; MUSCLES; HEPATOPANCREAS
Alibaud, R.; Bontoux, J.; Rambaud, A.; Lautier, J.; Chanal, J.L. 1985 Xenobiotica 15(12):1103-1110

***Dimethyloctanol* (No postings in CHEMLINE).**

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
8770 Body		Not given	3.7 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

Dodecane, 1-cyclohexyl- (8 CI); Cyclohexane, dodecyl- (9 CI)
1795-17-1
C18-H36
MW 252.49
Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
8771 Carcass	a) 3 b) 3 c) 3 d) 12 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 17.33+/-5.14 b) 33.66+/-2.65 c) 34.12+/-4.72 d) 24.90+/-3.88 % of ingested dose	a) 12 hr b) 24 hr c) 48 hr d) 1 wk Times after 5 mg tritiated compound (0.1 mCi). At 1 wk, 25% of ingested radioactivity here, 3/4 of it as unchanged compound. France, Landes Scintillation counting
8772 Liver	a) 3 b) 3 c) 3 d) 12 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 0.83+/-0.27 b) 1.79+/-0.31 c) 1.41+/-0.09 d) 0.56+/-0.12 % of ingested dose	a) 12 hr b) 24 hr c) 48 hr d) 1 wk Times after 5 mg tritiated compound (0.1 mCi). At 1 wk, 25% of label in original compound. Includes details of distribution of radioactivity in lipids. France, Landes Scintillation counting

DELIBERATE EXPOSURE; FISHES; AQUATIC; LIVER; CARCASS; BIOACCUMULATION; FRANCE; PETROLEUM HYDROCARBONS; METABOLISM; METABOLITES
Cravedi, J.-P.; Tulliez, J. 1986 Archives of Environmental Contamination and Toxicology 15:207-213

Ethane, chloro-
75-00-3
C2-H5-Cl
MW 64.52, MP -138.7 C, BP 12.3 C at 760 mm Hg
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
8773 Body		Not given	7.6 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

Ethane, 1,1-dichloro-
75-34-3
C2-H4-Cl2
MW 99.0, MP -97.7 C, BP 57.3 C, VP 230 mm Hg at 25 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
8774 Body		Not given	33 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

Ethane, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
53-19-0
C14-H10-Cl4
MW 320.05, MP 76-78 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8775 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

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8776 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

Ethane, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
53-19-0
C14-H10-Cl4
MW 320.05, MP 76-78 C

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8777 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
8778 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, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8779 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				

Ethane, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
53-19-0
C14-H10-Cl4
MW 320.05, MP 76-78 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8780 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) <0.005 mg/kg c) 0.32 mg/kg d) 0.18 mg/kg e) 0.14 mg/kg f) <0.005 mg/kg g) <0.005 mg/kg h) 0.03 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
8781 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

Chironomid

Tissue	Cases Exposure Route	Range	Mean	General Information
8782 Body		a) Not given b) Not given	a) 22.768 ug/g b) 0.319 ug/g Wet wt	a) Huntsville Spring Branch, mile 4 b) Indian Creek, Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES

Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethane, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
53-19-0
C14-H10-Cl4
MW 320.05, MP 76-78 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8783 Body		Not applicable	0.03 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, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
8784 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
8785 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

Ethane, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
53-19-0
C14-H10-Cl4
MW 320.05, MP 76-78 C

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
8786 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
8787 Body		a) Not applicable b) Not applicable	a) <0.005 mg/kg b) 0.30 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
8788 Liver	1	Not applicable	8 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

Ethane, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
53-19-0
C14-H10-Cl4
MW 320.05, MP 76-78 C

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8769 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

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
8790 Body		Not applicable	<0.005 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
8791 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.005 mg/kg b) 0.04 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

Ethane, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
53-19-0
C14-H10-Cl4
MW 320.05, MP 76-78 C

Water boatman (Corixidae)
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8792 Body		Not given	8.266 ug/g Wet wt	Huntsville Spring Branch, mile 3. Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Worms, Tubificidae

Tissue	Cases Exposure Route	Range	Mean	General Information
8793 Body		a) Not given b) Not given	a) 0.557 ug/g b) 30.680 ug/g Wet wt	a) Huntsville Spring Branch, mile 6 b) Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8794 Body		Not applicable	<0.005 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
8795 Eggs	2	1.77-3.33 ug/g	0.37 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
8796 Gonads	10	0.04-0.11 ug/g	0.48 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
8797 Muscle	a) 1 b) 10	a) Not applicable b) 0.04-0.11 ug/g	a) Not detected b) 0.05 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
8798 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
8799 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
8800 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
8801 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
8802 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
8803 Mammary gland				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.

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8804 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

Tissue	Cases Exposure Route	Range	Mean	General Information
8805 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) 2.593 mg/kg c) 0 mg/kg d) 3.028 mg/kg e) 0 mg/kg f) 0.688 mg/kg g) 0 mgkg h) 0.046 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

Buffalo
BUBALUS BUBALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8806 Adipose	17	0.049-1.414 ppm Wet wt	0.490+/-0.086 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Buffalo
BUBALUS BUBALIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8807 Bone marrow	5	0.165-2.605 ppm Wet wt	1.289+/-0.4446 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8808 Brain	16	0.009-0.054 ppm Wet wt	0.038+/-0.003 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8809 Liver	17	0.024-0.285 ppm Wet wt	0.094+/-0.019 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8810 Muscle	22	0.002-0.045 ppm Wet wt	0.011+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8811 Body		Not applicable	<0.005 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8812 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, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8813 Body		Not applicable	0.004 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8814 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) 0.06 mg/kg b) <0.005 mg/kg c) 0.34 mg/kg d) <0.005 mg/kg e) <0.005 mg/kg f) <0.005 mg/kg g) <0.005 mg/kg h) <0.005 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
8815 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) 0.61 mg/kg c) 3.013 mg/kg d) 4.934 mg/kg e) 4.534 mg/kg f) 1.936 mg/kg g) 0.037 mg/kg h) 0.014 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Carp
CYPRINUS CARPIC

Tissue	Cases Exposure Route	Range	Mean	General Information
8816 Liver	1	Not applicable	50 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

Catfish
ANARHICHAS LUPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8817 Liver	a) 6 b) 2	a) Not detected-150 ug/kg b) Not detected-3 ug/kg Wet wt	a) 75+/-82 ug/kg b) 3 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalsfjord. Limit of detection 2 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*

Tissue	Cases Exposure Route	Range	Mean	General Information
8818 Muscle	8	0.09-0.23 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8819 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) 0.010 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. Louisiana GC-EC
8820 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

Catfish, mud
CLARIAS LAZERA

Tissue	Cases Exposure Route	Range	Mean	General Information
8821 Muscle	11	0.04-0.17 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8822 Liver		Not given	0.01 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC
8823 Muscle		Not given	0.04 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC

ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; NIGERIA; TERRESTRIAL; MEAT; FOOD CONTAMINATION; MUSCLES; LIVER; ANTELOPES; CHICKENS; CATTLE; DDE; DDD; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES
Atuma, S.S. 1985 Bulletin of Environmental Contamination and Toxicology 35:735-738

Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8824 Adipose	3	0.045-0.083 ppm Wet wt	0.055 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
8825 Adipose	22	0.043-6.372 ppm Wet wt	0.778+/-0.306 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8826 Blood, plasma	3	0.002-0.002 ppm Wet wt	0.002 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8827 Brain	3	0.001-0.001 ppm Wet wt	0.001 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
8828 Brain	19	0.002-0.505 ppm Wet wt	0.038+/-0.002 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8829 Liver	20	0.047-0.447 ppm Wet wt	0.170+/-0.023 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8830 Muscle	10	0.002-0.021 ppm Wet wt	0.007+/-0.002 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Chironomid

Tissue	Cases Exposure Route	Range	Mean	General Information
8831 Body		a) Not given b) Not given	a) 28.642 ug/g b) 2.372 ug/g Wet wt	a) Huntsville Spring Branch, mile 4 b) Indian Creek, Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Chub, Rio Grande
GILA NIGRESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
8832 Body, whole	16	36-58 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Monte Vista National Wildlife Refuge, CO. Length 81-117 mm, avg wt 10 g. Data also given for mixed species. Colorado 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

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
8833 Liver	a) 7 b) 18 c) 3	a) 36-660 ug/kg b) 15-385 ug/kg c) 36-112 ug/kg Wet wt	a) 295+/-245 ug/kg b) 121+/-103 ug/kg c) 79+/-39 ug/kg Wet wt	a) Sogndalsfjord, 1977 b) 1982 c) Dalsfjord, 1977 Location and year collected. 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Cormorant, olivaceous
PHALACROCORAX OLIVACEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8834 Carcass		a) Not detected b) 0.1-0.3 ppm Wet wt	a) Not detected b) Not given	a) 1980 b) 1981 Shot with steel shot at Atkinson Island. Carcasses analyzed did not include skin, bills, feet, gastrointestinal tracts, livers, or kidneys. 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

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8835 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
8836 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Crayfish
PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
8837 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				

Crow, house
CORVUS SPLENDENS

Tissue	Cases Exposure Route	Range	Mean	General Information
8838 Adipose	3	1.151-3.530 ppm Wet wt	2.107 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8839 Blood, plasma	3	0.006-0.010 ppm Wet wt	0.007 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8840 Brain	3	Not detected-0.024 ppm Wet wt	0.003 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13				

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
8841 Blood, plasma	3	Not detected-0.002 ppm Wet wt	0.001 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8842 Brain	3	Not detected-0.003 ppm Wet wt	0.001 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
8843 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
8844 Wing		Not detected-0.11+/-0.09 ppm S.E. Wet wt	0.04+/-0.03 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 0.06+/-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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
8845 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
8846 Wing		a) Not detected-0.02+/-0.00 ppm) Not detected-0.09+/-0.03 ppm c) Not detected-0.02 ppm d) Not detected-0.01+/-0.01 ppm S.E. Wet wt	a) 0.01+/-0.00 ppm b) 0.05+/-0.02 ppm c) 0.02+/-0.00 ppm d) 0.02+/-0.01 ppm S.E. Wet wt	a) Atlantic flyway, 5 pools (total 29) b) Mississippi flyway, 8 pools (total 64) c) Central flyway, 1 pools (total 54) d) Pacific flyway, 3 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 0.02+/-0.01, 0.05+/-0.03, 0.04+/-0.01, 0.03+/-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
8847 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Eagle, bald
HALIAEETUS LEUCOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8848 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				

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8849 Eggs	4	13-373 ng/g Wet wt	153+/-155 ng/g Wet wt	Collected in 1980-1982. Finland GC-EC
8850 Muscle	4	0-302 ng/g Wet wt	75.5+/-151 ng/g Wet wt	Collected in 1980-1982. 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				

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8851 Adipose	3	2.289-23.478 ppm Wet wt	6.991 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Egret, cattle
BUBULCUS IBIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8852 Blood, plasma	3	0.003-0.006 ppm Wet wt	0.004 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8853 Brain	3	Not detected-0.014 ppm Wet wt	0.004 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 *Pesticides Monitoring Journal* 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
8854 Brain	a) 2 b) 1 c) 3	a) Not detected b) Not detected c) Not detected-0.10 ppm Wet wt	a) Not detected b) Not detected c) Not applicable	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
8855 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected-0.21 ppm b) Not detected c) Not applicable d) Not detected	a) Not applicable b) Not detected c) 0.15 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 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8856 Brain	a) 4 b) 1	a) Not detected b) Not applicable	a) Not detected b) 1.2 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
8857 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) 0.68 ppm d) Not detected e) 1.90 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 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, snowy
EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
8858 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
8859 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
8860 Body		0.00-3.43 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=34.0 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
8861 Muscle	a) 140 b) 14 c) 15 d) 98 e) 24	a) Not detected-0.17 ug/g b) Not detected-0.06 ug/g c) Not detected-0.28 ug/g d) Not detected-0.11 ug/g e) Not detected-0.49 ug/g	a) 0.04 ug/g b) 0.02 ug/g c) 0.06 ug/g d) 0.02 ug/g e) 0.03 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
8862 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 11.13 ug/kg b) 54.37 ug/kg c) 27.27 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Fish (S. auratus)
SPARUS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8863 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 14.34 ug/kg b) 31.36 ug/kg c) 11.62 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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
8864 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 12.56 ug/kg b) 144.0 ug/kg c) 0.15 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
8865 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 48.13 ug/kg b) 31.41 ug/kg c) 59.71 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Fish (Saurida sp.)
SAURIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8866 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 11.24 ug/kg b) 48.46 ug/kg c) 52.4 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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
8867 Muscle	a) 11 b) 12	a) 17.37-44.17 ug/kg b) 2.60-30.00 ug/kg Wet wt	a) 30.51 ug/kg b) 16.87 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

Fish (T. zillii)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
8868 Muscle	a) 20 b) 14	a) <0.2-9.77 ug/kg b) <0.2-4.00 ug/kg Wet wt	a) Not given b) Not given	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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Fish (Tilapia)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
8869 Muscle	6	0.08-0.19 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Fish (Trichurus sp.)
TRICHURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8870 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 11.13 ug/kg b) 53.7 ug/kg c) 96.48 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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, African bony tongue
HETEROTIS NILOTICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8871 Muscle	5	0.08-0.17 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
8872 Liver	1	Not applicable	1100 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, elephant snout
MORMYRUS MACROPHTHALMUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8873 Muscle	4	0.18-0.40 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
8874 Liver	1	Not applicable	5 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Fish, scorpion
SCORPAENA SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
8875 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				

Fish, snake head
CHANNA OBSCURA

Tissue	Cases Exposure Route	Range	Mean	General Information
8876 Muscle	5	0.06-0.08 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254				

Flounder
PLATICHTHYS FLESUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8877 Liver	a) 10 b) 10	a) 30-120 ug/kg b) 3-49 ug/kg Wet wt	a) 52+/-34 ug/kg b) 13+/-13 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalfjord. 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				

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Frog
RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8878 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
8879 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

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8880 Adipose	16	0.006-0.420 ppm Wet wt	0.056+/-0.026 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8881 Bone marrow	8	0.025-0.294 ppm Wet wt	0.065+/-0.032 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Goat
CAPRA sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8882 Brain	14	0.003-0.013 ppm Wet wt	0.005+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8883 Liver	18	0.004-0.039 ppm Wet wt	0.013+/-0.002 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8884 Muscle	24	0.002-0.005 ppm Wet wt	0.002+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
8885 Carcass		a) Not detected b) Not given	a) Not detected b) 0.3 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. 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Haddock
MELANOGRAMMUS AEGLEFINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8886 Liver	a) 9 b) 7	a) 50-260 ug/kg b) 22-298 ug/kg Wet wt	a) 110+/-61 ug/kg b) 84+/-99 ug/kg Wet wt	a) 1977 b) 1982 Year collected from Sogndalsfjord. 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				

Hawk, red-shouldered
BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8887 Liver	5	Not detected-0.50 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1974-81. Not detected in 3/5, detection limit 0.01 ug/g. Wt 390-500 g. Florida GC-EC
8888 Muscle	6	Not detected-0.37 ug/g wet wt	Not given	Dead or moribund omnivorous raptors collected 1974-81. Not detected in 5/6, 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				

Hawk, red-tailed
BUTEO JAMAICENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8889 Adipose	1	Not applicable	0.14 ug/g Wet wt	Juvenile, collected 12/28/74. Wt 1130 g. Florida, Alachua County GC-EC
8890 Liver	2	Not applicable	0.01 ug/g Wet wt	Collected 12/74-1/75, wt 1130-1220 g. Florida, Alachua County GC-EC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Hawk, red-tailed
BUTEO JAMAICENSIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8891 Muscle	2	Not applicable	0.01 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				

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
8892 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
8893 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not applicable b) 0.16-0.60 ppm c) Not detected d) Not applicable e) Not applicable f) Not detected-0.80 ppm g) Not detected Wet wt	a) 0.11 ppm b) 0.45 ppm c) Not detected d) 1.4 ppm e) 0.50 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. Means 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				

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
8894 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-1.2 ppm b) Not detected-22.0 ppm c) Not detected-2.0 ppm d) Not applicable e) Not applicable f) Not applicable g) Not detected-4.0 ppm h) 0.15-1.0 ppm Wet wt	a) Not applicable b) Not applicable c) Not applicable d) 21.0 ppm e) 0.10 ppm f) 0.10 ppm g) Not applicable h) 0.56 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
8895 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected-0.23 ppm b) Not detected-0.85 ppm c) Not detected-78.0 ppm d) Not detected-5.5 ppm e) Not applicable f) Not detected-2.3 ppm g) Not detected-6.0 ppm h) Not applicable Wet wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) 0.10 ppm f) Not applicable g) Not applicable h) 0.35 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) 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8896 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
8897 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 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

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
8898 Carcass	a) 2 b) 1	a) Not detected-0.13 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) for "not detected". 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
8899 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. 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
8900 Carcass	3	Not detected-0.15 ppm Wet wt	Not applicable	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
8901 Brain	17	Not detected-0.22 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1971-77. Not detected in 15/17, detection limit 0.01 ug/g. Wt 80-108. Florida GC-EC
8902 Liver	15	Not detected-1.60 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1971-75. Not detected in 14/15, detection limit 0.01 ug/g. Wt 80-103. Florida GC-EC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Kestrel, American
FALCO SPARVERIUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8903 Muscle	15	Not detected-0.54 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1971-75. Not detected in 13/15, detection limit 0.01 ug/g. Wt 80-103. 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				

Kite, pariah
MILVUS MIGRANS

Tissue	Cases Exposure Route	Range	Mean	General Information
8904 Adipose	3	2.850-43.886 ppm Wet wt	11.275 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8905 Blood, plasma	3	0.229-0.420 ppm Wet wt	0.317 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8906 Brain	3	0.014-0.027 ppm Wet wt	0.019 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13				

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
8907 Body, whole	95	5-10 ug/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Monte Vista National Wildlife Refuge, Colorado. Length 43-81 mm, avg wt 3.1 g. Data also given for mixed species. Colorado 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

Mullet
MUGIL CEPHALICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8908 Muscle	a) 10 b) 12 c) 3 d) 12	a) <0.20-26.66 ug/kg b) 1.22-6.14 ug/kg c) 12.00-26.00 ug/kg d) 1.8-16.58 ug/kg Wet wt	a) Not given b) Not given c) Not given d) Not given	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

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8909 Adipose	2	0.43-1.30 ug/g Wet wt	0.87 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8910 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

Tissue	Cases Exposure Route	Range	Mean	General Information
8911 Brain	4	Not detected-0.01 ug/g Wet wt	Not given	Collected 1974-75, wt 730-1280 g. Not detected in 3/4, 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
8912 Eggs	7	51-351 ng/g Wet wt	124+/-106 ng/g Wet wt	Collected in 1980-1982. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
8913 Liver	2	0.01-0.18 ug/g Wet wt	0.10 ug/g Wet wt	Adults, collected 1974, 1160-1280 g. Mean calculated by extractor. Florida GC-EC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Osprey
PANDION HALIAETUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8914 Muscle	2	0.09-0.60 ug/g Wet wt	0.35 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
8915 Liver	1	Not applicable	22 mg/kg Fat wt	From group of 15, 11 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
8916 Muscle	5	2.3-16.3 mg/kg Fat wt	5.94 mg/kg Fat wt	From group of 15, 8 with undetectable levels (limits not given) and with 1 trace level. 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				

Owl, barn-, common
TYTO ALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
8917 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				

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
8918 Brain	10	Not detected-0.03 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Not detected in 8/10, detection limit 0.01 ug/g. Wt 450-863 g. Florida GC-EC
8919 Liver	5	Not detected-0.39 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
8920 Muscle	5	Not detected-0.25 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Not detected in 2/5, 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
8921 Brain	3	Not detected-0.25 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-74. Not detected in 3/3, detection limit 0.01 ug/g. 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, screech-, Eastern
OTUS ASIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8922 Brain	17	Not detected-2.40 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1974-78. Not detected in 15/17, detection limit 0.01 ug/g. Wt 60-191 g. Florida GC-EC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Owl, screech-, Eastern
OTUS ASIO

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8923 Muscle	4	Not detected-0.23 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1974-75. Not detected in 3/4, detection limit 0.01 ug/g. Wt 80-100 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

Pelican, brown
PELECANUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8924 Eggs	a) 23 b) 61 c) 33 d) 40	a) Not detected-0.61 ug/g b) Not detected-1.80 ug/g c) 0.10-0.71 ug/g d) Not detected-1.04 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 0.23 ug/g, 1973, 0.21 ug/g, 1974, 0.36 ug/g, 1975, 0.47 ug/g b) Freshly laid, unsuccessful, mean 1971-72 was 0.39 ug/g, 1973, 0.25 ug/g, 1974, 0.38 ug/g, 1975, 0.36 ug/g c) Embryonated, successful, mean 1971-72 was 0.35 ug/g, 1973, 0.23 ug/g, 1974, 0.45 ug/g, 1975, 0.48 ug/g d) Embryonated, unsuccessful, mean 1971-72 was 0.56 ug/g, 1973, 0.18 ug/g, 1974, 0.54 ug/g, 1975, 0.33 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

Perch, white
MORONE AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
8925 Eggs	1	Not applicable	0.04 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)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Perch, white
MORONE AMERICANA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8926 Muscle	1	Not applicable	0.06 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
8927 Eggs	2	0.16-0.34 ug/g	0.25 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
8928 Muscle	2	0.02-0.06 ug/g	0.04 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8929 Body		a) Not applicable b) Not applicable	a) 0.13 mg/kg b) <.005 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
8930 Liver	1	Not applicable	80 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, J.; 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
8931 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Reindeer
RANGIFER sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8932 Body	2 Ingestion	4.67-6.57 ug	5.62 ug	Total burden in 3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 290 ug. Means calculated by extractor. Sweden, Lake Rogen district
8933 Liver	2 Ingestion	0.047-0.087 ng/g	0.067 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 290 ug. Means calculated by extractor. Lower value in 4-yr old. Sweden, Lake Rogen district
8934 Muscle	2 Ingestion	0.191-0.27 ng/g	0.23 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 290 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				

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
8935 Eggs	a) 15 b) 3 c) 10	a) 4-200 ppb b) 60-96 ppb c) 3-9 ppb Wet wt	a) 108+/-54.3 ppb b) 77.7+/-18.0 ppb c) 5.60+/-2.50 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%. Finland, Baltic Sea GC-EC

(next page)

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Salmon, Baltic
SALMO SALAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8936 Liver	a) 15 b) 3 c) 10	a) 7-83 ppb b) 6-25 ppb c) 2-9 ppb Wet wt	a) 32.1+/-18.7 ppb b) 14.0+/-9.85 ppb c) 3.70+/-2.31 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-EC
8937 Muscle	a) 14 b) 3 c) 10	a) 11-267 ng/g b) 53-174 ng/g c) 3-64 ng/g Wet wt	a) 141+/-74.1 ng/g b) 112+/-60.6 ng/g c) 29.6+/-26.1 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

Scorpion, sea
MYOXOCEPHALUS SCORPIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8938 Liver	a) 5 b) 6	a) Not detected-30 ug/kg b) Not detected-5 ug/kg Wet wt	a) 12+/-13 ug/kg b) 3+/-2 ug/kg Wet wt	a) 1977 b) 1982 Year collected from Sogndalsfjord. Limit of detection 2 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Shad
DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8939 Body, whole	25	a) Not given b) Not applicable c) Not given d) Not applicable e) Not given f) Not applicable	a) 0.084 ppm b) Not detected c) 0.106 ppm d) Not detected e) 0.084 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

Shiner, red
NOTROPIS LUTRENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8940 Body, whole	48	Not given	60 ng/g Wet wt	Collected Jun-Aug 1980, 1981, or 1982 at Alamosa National Wildlife Refuge, CO. Length 44-71 mm, avg wt 2.2 g. Data also given for mixed species. Colorado 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

Skimmer, black
RHYNCHOPS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
8941 Carcass		a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	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 GC; 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Snake, water
NATRIX *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
8942 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

Sole, lemon
MICROSTOMAS KITT

Tissue	Cases Exposure Route	Range	Mean	General Information
8943 Liver	a) 6 b) 10 c) 5	a) Not detected-110 ug/kg b) Not detected-18 ug/kg c) Not detected-30 ug/kg Wet wt	a) 40+/-48 ug/kg b) 4+/-7 ug/kg c) 9+/-12 ug/kg Wet wt	a) 1977, Sogndalsfjord b) 1982, Sogndalsfjord c) 1977, Dalsfjord Year and location of collection. Limit of detection 2 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

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8944 Muscle	a) 36 b) 49 c) 49 d) 28 e) 21 f) 24	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.556+/-3.33 ppb b) 1.96+/-7.47 ppb c) 2.59+/-7.53 ppb d) 0.36+/-0.189 ppb e) 0.143+/-0.478 ppb f) 0.333+/-1.01 ppb Wet wt	a) 1968 b) 1978 c) 1979 d) 1981 e) 1982 f) 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8945 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
8946 Body		Not applicable	0.04 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

Tissue	Cases Exposure Route	Range	Mean	General Information
8947 Body, whole	48	50-60 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Alamosa National Wildlife Refuge, CO. Length 73-188 mm, avg wt 15 g. Data also given for mixed species. Colorado 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 Cl); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 Cl)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
8948 Eggs	11	0-38 ppb Wet wt	10.4+/-10.5 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 egg fat 2.72%. Finland, Baltic Sea GC-EC
8949 Liver	11	0-14 ppb Wet wt	3.55+/-4.68 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 liver fat 2.72%. Finland, Baltic Sea GC-EC
8950 Muscle	11	1-71 ppb Wet wt	16.6+/-19.6 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-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
8951 Fillets	3	0.108-0.127 ppm	0.120+/-0.0057 ppm	Included skin. Range, mea[illegible] 9 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

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
8952 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) 0.13+/-0.34 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 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

Vulture, Bengal
GYPS BENGALENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8953 Adipose	3	25.197-61.909 ppm Wet wt	39.543 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8954 Blood, plasma	3	0.133-0.317 ppm Wet wt	0.209 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
8955 Brain	3	0.228-1.022 ppm Wet wt	0.386 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Vulture, black
CORAGYPS ATRATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8956 Adipose	1	Not applicable	0.98 ug/g Wet wt	Collected 3/28/72. Florida, Alachua County GC-EC
8957 Muscle	1	Not applicable	0.03 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

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
8958 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.00 mg/kg [sic] b) <0.005 mg/kg c) <0.005 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

Water boatman (Corixidae)
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8959 Body		Not given	8.201 ug/g Wet wt	Huntsville Spring Branch, mile 3. Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethane, 1,1-dichloro-2,2-bis(p-chlorphenyl)- (8 CI); Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro- (9 CI)
72-54-8
C14-H10-Cl4
MW 320.05, MP 109-110 C, BP 193 C at 1 mm Hg

Worms, Tubificidae

Tissue	Cases Exposure Route	Range	Mean	General Information
8960 Body		a) Not given b) Not given	a) 0.705 ug/g b) 38.520 ug/g Wet wt	a) Huntsville Spring Branch, mile 6 b) Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other0data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Wrasse, ballan
LABRUS BERGGYLTA

Tissue	Cases Exposure Route	Range	Mean	General Information
8961 Liver	a) 10 b) 10	a) Not detected b) Not detected-6 ug/kg Wet wt	a) Not detected b) 4+/-2 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalsfjord. Limit of detection 2 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

Ethane, 1,1,1-trichloro-
71-55-6
C2-H3-Cl3
MW 133.42, MP -30.41 C, BP 74.1 C, VP 100 mm Hg at 20 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
8962 Body		a) Not given b) Not given	a) 160 ppm b) 39 ppm Wet wt	a) Chef Menteur Pass b) 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

Ethane, 1,1,1-trichloro-
71-55-6
C2-H3-Cl3
MW 133.42, MP -30.41 C, BP 74.1 C, VP 100 mm Hg at 20 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
8963 Body		Not given	310 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8964 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
8965 Body		Not applicable	0.02 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8966 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/ml b) 0.008 mg/ml c) 0 mg/ml d) 0 mg/ml e) 0 mg/ml f) 0 mg/ml g) 0 mg/ml h) 0 mg/ml 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

Buffalo
BUBALUS BUBALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8967 Muscle	22	0.002-0.008 ppm Wet wt	0.003+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8968 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8969 Body		Not applicable	<0.020 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
8970 Body		Not applicable	<0.020 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
8971 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) 0.11 mg/kg c) 0.16 mg/kg d) 0.16 mg/kg e) 0.17 mg/kg f) 0.07 mg/kg g) 0.05 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				

Tissue	Cases Exposure Route	Range	Mean	General Information
8972 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				

Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8973 Brain	10	Not detected-0.024 ppm Wet wt	0.005+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Chicken
GALLUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
8974 Liver	18	Not detected-0.130 ppm Wet wt	0.040+/-0.013 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Chironomid

Tissue	Cases Exposure Route	Range	Mean	General Information
8975 Body		a) Not given b) Not given	a) 87.133 ug/g b) 2.126 ug/g Wet wt	a) Huntsville Spring Branch, mile 4 b) Indian Creek, Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8976 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Crow, house
CORVUS SPLENDENS

Tissue	Cases Exposure Route	Range	Mean	General Information
8977 Adipose	3	Not detected-5.024 ppm Wet wt	2.107 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Fish (T. nilotica)
TILAPIA NILOTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
8978 Muscle	a) 11 b) 12	a) 0.0-8.5 ug/kg b) <0.2 ug/kg Wet wt	a) 3.7 ug/kg b) <0.2 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

Fish (T. zillii)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
8979 Muscle	a) 20 b) 14	a) <0.2-<0.2 ug/kg b) 0.0-0.3 ug/kg Wet wt	a) <0.2 ug/kg b) 0.1 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
8980 Liver	1	Not applicable	390 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
8981 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
8982 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				

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 Cl)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8983 Brain	3	Not detected-0.003 ppm Wet wt	0.001+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8984 Liver	1	Not applicable	0.003 ppm Wet wt	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
8985 Muscle	22	Not detected-0.011 ppm Wet wt	0.006+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Mullet
MUGIL CEPHALICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8986 Muscle	a) 10 b) 12 c) 3 d) 12	a) <0.2-<0.2 ug/kg b) <0.2-<0.2 ug/kg c) 0.0-9.0 ug/kg d) 0.0-9.8 ug/kg Wet wt	a) <0.2 ug/kg b) <0.2 ug/kg c) 3.4 ug/kg d) 3.36 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8987 Body		a) Not applicable b) Not applicable	a) 0.04 mg/kg b) 0.26 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
8988 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

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8989 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

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (cor)

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
8990 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
8991 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.02 mg/kg b) 0.05 mg/kg c) 0.06 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

Water boatman (Corixidae)
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
8992 Body		Not given	0.490 ug/g Wet wt	Huntsville Spring Branch, mile 3. Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethane, 1,1,1-trichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2,2-trichloro-1-(4-chlorophenyl)ethyl)- (9 CI)
789-02-6
C14-H9-Cl5
MW 354.49, BP 74-74.5 C (*cor*)

Worms, Tubificidae

Tissue	Cases Exposure Route	Range	Mean	General Information
8993 Body		a) Not given b) Not given	a) 0.244 ug/g b) 50.310 ug/g Wet wt	a) Huntsville Spring Branch, mile 6 b) Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Antelope

Tissue	Cases Exposure Route	Range	Mean	General Information
8994 Liver		Not given	0.04 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC

ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; NIGERIA; TERRESTRIAL; MEAT; FOOD CONTAMINATION; MUSCLES; LIVER; ANTELOPES; CHICKENS; CATTLE; DDE; DDD; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES
Atuma, S.S. 1985 Bulletin of Environmental Contamination and Toxicology 35:735-738

Barbel
CLARIAS GARIEPINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
8995 Adipose	3	Not detected-1.52 mg/kg	0.78 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
8996 Body		Not applicable	0.004 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
8997 Muscle	2	1.77-3.33 ug/g	Not detected	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				

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
8998 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
8999 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
9000 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)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Bat

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9001 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
9002 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
9003 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, red-winged
AGELAIUS PHOENICEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9004 Body		Not given	0.10 ppm Dry wt Geometric mean	Collected 1982-83. 3 pools, 8-10 animals in each. Texas (western), Reeeves, Hudspeth Counties

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9005 Body		Not applicable	<0.002 mg/ml	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
9006 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/ml b) 3.619 mg/ml c) 0 mg/ml d) 5.103 mg/ml e) 0 mg/ml f) 0 mg/ml g) 0 mg/ml h) 0.066 mg/ml 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Boar
SUS SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
9007 Liver	5	0.01-0.02 ppm Wet wt	0.014 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9008 Muscle	5	Not detected-0.02 ppm Wet wt	0.010 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Buffalo
BUBALUS BUBALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9009 Adipose	17	0.021-0.920 ppm Wet wt	0.183+/-0.055 ppm Wet wt S.E.	Collected from slaughterh [illegible] and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9010 Bone marrow	5	0.019-1.718 ppm Wet wt	0.720+/-0.351 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9011 Brain	16	0.007-0.078 ppm Wet wt	0.044+/-0.004 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Buffalo
BUBALUS BUBALIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9012 Liver	17	0.002-0.107 ppm Wet wt	0.018+/-0.007 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9013 Muscle	22	0.002-0.023 ppm Wet wt	0.006+/-0.002 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS, BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9014 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9015 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
9016 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9017 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) 0.04 mg/kg d) <0.002 mg/kg e) 0.06 mg/kg f) 0.08 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, 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
9018 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) 0.056 mg/kg c) 0 mg/kg d) 1.147 mg/kg e) 0 mg/kg f) 0.008 mg/kg g) 0.029 mg/kg h) 0.008 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Catfish
ANARHICHAS LUPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9019 Liver	a) 6 b) 2	a) 30-260 ug/kg b) 2-8 ug/kg Wet wt	a) 128+/-74 ug/kg b) 5+/-4 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalsfjord. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9020 Muscle	8	0.11-2.34 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Catfish, mud
CLARIAS LAZERA

Tissue	Cases Exposure Route	Range	Mean	General Information
9021 Muscle	11	0.02-0.15 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9022 Liver		Not given	0.02 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC

(next page)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9023 Muscle		Not given	0.01 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC
ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; NIGERIA; TERRESTRIAL; MEAT; FOOD CONTAMINATION; MUSCLES; LIVER; ANTELOPES; CHICKENS; CATTLE; DDE; DDD; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES Atuma, S.S. 1985 Bulletin of Environmental Contamination and Toxicology 35:735-738				

Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9024 Adipose	3	0.236-0.298 ppm Wet wt	0.272 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13				

Tissue	Cases Exposure Route	Range	Mean	General Information
9025 Adipose	20	Not detected-3.200 ppm Wet wt	0.644+/-0.301 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106				

Tissue	Cases Exposure Route	Range	Mean	General Information
9026 Blood, plasma	3	Not detected-0.007 ppm Wet wt	0.003 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Chicken
GALLUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9027 Brain	3	0.007-0.009 ppm Wet wt	0.008 ppm *Geometric* Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Tissue	Cases Exposure Route	Range	Mean	General Information
9028 Brain	16	Not detected-0.022 ppm Wet wt	0.011+/-0.002 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9029 Liver	16	Not detected-0.130 ppm Wet wt	0.025+/-0.006 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9030 Muscle	10	0.002-0.107 ppm Wet wt	0.030+/-0.010 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Chironomid

Tissue	Cases Exposure Route	Range	Mean	General Information
9031 Body		a) Not given b) Not given	a) 440.670 ug/g b) 30.543 ug/g Wet wt	a) Huntsville Spring Branch, mile 4 b) Indian Creek, Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
9032 Liver	a) 7 b) 18 c) 3	a) 30-740 ug/kg b) 33-838 ug/kg c) 30-120 ug/kg Wet wt	a) 515+/-234 ug/kg b) 288+/-262 ug/kg c) 60+/-51 ug/kg Wet wt	a) Sogndalsfjord, 1977 b) 1982 c) Dalsfjord, 1977 Location and year collected. 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, white-breasted
PHALACROCORAX CARBO LUCIDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9033 Adipose	a) 3 b) 1	Not detected-0.51 mg/kg b) Not applicable	a) 0.26 mg/kg b) 6.68 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9034 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

Crow, house
CORVUS SPLENDENS

Tissue	Cases Exposure Route	Range	Mean	General Information
9035 Adipose	3	4.486-63.421 ppm Wet wt	12.563 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9036 Blood, plasma	3	0.014-0.024 ppm Wet wt	0.018 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9037 Brain	3	Not detected-0.030 ppm Wet wt	0.004 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Deer, fallow
DAMA DAMA

Tissue	Cases Exposure Route	Range	Mean	General Information
9038 Liver	8	0.01-0.02 ppm Wet wt	0.13 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9039 Muscle	8	Not detected-0.02 ppm Wet wt	0.011 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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
9040 Liver	8	0.01-0.03 ppm Wet wt	0.017 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9041 Muscle	8	Not detected-0.02 ppm Wet wt	0.10 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Dove, mourning
ZENAIDURA MACROURA

Tissue	Cases Exposure Route	Range	Mean	General Information
9042 Body		a) Not given b) Not given c) Not given	a) <0.03 ppm b) 0.0007 ppm c) 0.013 ppm Dry wt Geometric means	a) Reeves, Hudspeth and Presidio Counties, TX, 1982-3, 5 pools, 8-10 each b) Monterey and San Luis Obispo Counties, CA, 1980, 3 cases c) Mendocino County, CA, 1980, 3 cases, pooled Texas; California

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9043 Blood, plasma	3	0.002-0.007 ppm Wet wt	0.003 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Hussain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Dowitcher, short-billed
LIMNODROMUS GRISEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9044 Body		Not given	0.1 ppm Dry wt Geometric mean	Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C
Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
9045 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
9046 Wing		Not detected-0.03+/-0.01 ppm S.E. Wet wt	0.02+/-0.00 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 0.06+/-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
9047 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
9048 Wing		a) 0.01+/-0.00-0.03+/-0.00 ppm b) Not detected-0.13+/-0.03 ppm c) Not detected-0.02+/-0.02 ppm d) Not detected-0.04+/-0.03 ppm S.E. Wet wt	a) 0.02+/-0.01 ppm b) 0.05+/-0.01 ppm c) 0.03+/-0.01 ppm d) 0.02+/-0.01 ppm S.E. Wet wt	a) Atlantic flyway, 15 pools (total 29) b) Mississippi flyway, 18 pools (total 64) c) Central flyway, 12 pools (total 54) d) Pacific flyway, 25 pools (total 44) Ranges of means. 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 0.07+/-0.01, 0.07+/-0.01, 0.05+/-0.01, 0.06+/-0.01 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
9049 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

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9050 Adipose	3	1.418-7.854 ppm Wet wt	3.979 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9051 Blood, plasma	3	Not detected-0.006 ppm Wet wt	0.003 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9052 Brain	a) 2 b) 1 c) 3	a) Not detected b) Not applicable c) Not detected	a) Not detected b) 0.11 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. Detection limit 0.1 ppm. GLC
9053 Carcass	a) 2 b) 1 c) 1 d) 3	a) Not detected-0.12 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

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9054 Brain	a) 4 b) 1	a) Not detected-0.10 ppm b) Not applicable Wet wt	a) Not applicable b) 0.30 ppm Wet wt	a) Minnestoa, 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
9055 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) Not detected b) Not detected c) Not detected d) Not detected-0.75 ppm e) Not applicable Wet wt	a) Not detected b) Not detected c) Not detected d) Not applicable e) 0.40 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Egret, snowy
EGRETTA THULA

Tissue	Cases Exposure Route	Range	Mean	General Information
9056 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
9057 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
9058 Body		0.00-2.69 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=27.5 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
9059 Muscle	a) 140 b) 14 c) 15 d) 98 e) 24	a) Not detected-0.07 ug/g b) Not detected-0.02 ug/g c) Not detected-0.01 ug/g d) Not detected-0.020 ug/g e) Not detected-0.020 ug/g	a) 0.01 ug/g b) 0.004 ug/g c) 0.001 ug/g d) Not detected e) 0.001 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
9060 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.2 ug/kg b) 20.33 ug/kg c) 0.2 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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
9061 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 12.23 ug/kg b) 24.7 ug/kg c) 0.2 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Fish (S. aurita)
SARDINELLA AURITA

Tissue	Cases Exposure Route	Range	Mean	General Information
9062 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 4.7 ug/kg b) 0.2 ug/kg c) 0.15 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
9063 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.2 ug/kg b) 20.23 ug/kg c) 0.2 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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
9064 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.2 ug/kg b) 1.4 ug/kg c) 0.2 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Fish (T. nilotica)
TILAPIA NILOTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9065 Muscle	a) 11 b) 12	a) <0.2-9.30 ug/kg b) 1.20-6.67 ug/kg Wet wt	a) 4.63 ug/kg b) 3.96 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

Fish (T. zillii)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
9066 Muscle	a) 20 b) 14	a) 0.20-17.03 ug/kg b) 0.22-6.06 ug/kg Wet wt	a) Not given b) Not given	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 (Tilapia)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
9067 Muscle	6	0.05-1.12 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Fish (Trichurus sp.)
TRICHURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9068 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 0.2 ug/kg b) 2.2 ug/kg c) 6.54 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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, African bony tongue
HETEROTIS NILOTICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9069 Muscle	5	0.04-3.66 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Fish, elephant snout
MORMYRUS MACROPHTHALMUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9070 Muscle	4	0.3-2.91 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Fish, snake head
CHANNA OBSCURA

Tissue	Cases Exposure Route	Range	Mean	General Information
9071 Muscle	5	0.02-0.52 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Flounder
PLATICHTHYS FLESUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9072 Liver	a) 10 b) 10	a) 20-190 ug/kg b) 2-67 ug/kg Wet wt	a) 76+/-55 ug/kg b) 21+/-23 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalfjord. 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

Francolin
FRANCOLINIS NATALENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9073 Adipose	2	2.30-5.73 mg/kg	4.015 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9074 Adipose	16	0.006-0.097 ppm Wet wt	0.027+/-0.006 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9075 Bone marrow	8	0.023-0.476 ppm Wet wt	0.106+/-0.055 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9076 Brain	13	Not detected-0.015 ppm Wet wt	0.007+/-0.01 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Tissue	Cases Exposure Route	Range	Mean	General Information
9077 Liver		Not given	0.04 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC

ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; NIGERIA; TERRESTRIAL; MEAT; FOOD CONTAMINATION; MUSCLES; LIVER; ANTELOPES; CHICKENS; CATTLE; DDE; DDD; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES
Atuma, S.S. 1985 Bulletin of Environmental Contamination and Toxicology 35:735-738

Tissue	Cases Exposure Route	Range	Mean	General Information
9078 Liver	17	Not detected-0.015 ppm Wet wt	0.007+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Goat
CAPRA sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9079 Muscle	24	0.002-0.039 Wet wt	0.008+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Goose, Egyptian
ALOPOCHEN AEGYPTIACUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9080 Adipose	3	Not detected-1.62 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

Grackle, great-tailed
QUISCALUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9081 Body		a) Not given b) Not given c) Not given	a) 0.059 ppm b) 0.3 ppm c) 0.073 ppm Dry wt Geometric means	a) Hudspeth and Presidio Counties, 4 pools, 8-10 animals each b) Reeves, Hudspeth and Presidio Counties, 4 pools, 10 animals each c) Reeves County, 1 pool, 3 animals Collected 1982-83. Texas (western)

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Grebe, western
AECHMOPHORUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9082 Eggs	12	Not detected-1.5 ppm Wet wt	0.18 ppm Wet wt Geometric	Collected 1981. Includes DDD because of possible conversions during development and after death. 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

Grosbeak, black-headed
PHEUCTICUS MELANOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9083 Body		a) Not given b) Not given	a) 0.019 ppm b) 0.0098 ppm Dry wt Geometric means	a) Monterey County b) Yosemite Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Guinea fowl
NUMIDA MELEAGRIS MITRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9084 Adipose	1	Not applicable	0.08 mg/kg	Found dead, Bethel District, 1978. Fat extracted 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9085 Blood	6	a) Not detected-20.8 ppm b) Not detected-0.15 ppm	a) 5.8 ppm b) 0.04 ppm	a) Lipid basis b) Fresh wt From pre-fledglings collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Knife Island GC
9086 Eggs	10	1.2-4.9 ppm Fresh wt	2.8 ppm Fresh wt	Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Knife Island GC
9087 Muscle		a) Not detected-9.8 ppm b) Not detected-0.6 ppm c) 1.2-22.7 ppm d) 0.1-0.9 ppm	a) 3.5 ppm b) 0.2 ppm c) 8.1 ppm d) 0.4 ppm	a) Pre-fledge, lipid basis, 10 cases b) Samples in a, fresh wt c) Post-fledge, lipid basis, 4 cases d) Samples in c), fresh wt Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Knife Island GC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE
Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320

Gull, ring-billed
LARUS DELAWARENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9088 Blood	10	a) Not detected-2.2 ppm b) Not detected-0.02 ppm	a) 1.7 ppm b) 0.01 ppm	a) Lipid basis b) Fresh wt From pre-fledglings collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
9089 Eggs	10	0.2-3.5 ppm	1.4 ppm	Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC

(next page)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Gull, ring-billed
LARUS DELAWARENSIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9090 Muscle		a) Not detected-2.0 ppm b) Not detected-0.1 ppm c) 3.2-3.7 ppm d) 0.2-0.2 ppm	a) 1.4 ppm b) 0.1 ppm c) 3.4 ppm d) 0.2 ppm	a) Pre-fledge, lipid basis, 10 cases b) Samples in a, fresh wt c) Post-fledge, lipid basis, 2 cases d) Samples in c), fresh wt Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE
Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320

Haddock
MELANOGRAMMUS AEGLEFINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9091 Liver	a) 9 b) 7	a) 130-440 ug/kg b) 43-1600 ug/kg Wet wt	a) 362+/-197 ug/kg b) 332+/-566 ug/kg Wet wt	a) 1977 b) 1982 Year collected from Sogndalsfjord. 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

Hare
LEPUS EROPAUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9092 Adipose	26	Not given	0.668 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use prohibited since 1972. 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Hare, brown
LEPUS CAPENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9093 Liver	5	0.01-0.01 ppm Wet wt	0.010 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9094 Muscle	5	Not detected-0.01 ppm Wet wt	0.008 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Hawk, red-shouldered
BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9095 Brain	9	Not detected-1.20 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1974-81. Not detected in 7/9, detection limit 0.01 ug/g. Wt 360-660 g. Florida GC-EC
9096 Liver	5	Not detected-0.30 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1974-81. Not detected in 4/5, detection limit 0.01 ug/g. Wt 390-500 g. Florida GC-EC
9097 Muscle	6	Not detected-0.16 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1974-81. Not detected in 5/6, 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Hawk, red-tailed
BUTEO JAMAICENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9098 Adipose	1	Not applicable	0.23 ug/g Wet wt	Juvenile, collected 12/28/74. Wt 1130 g. Florida, Alachua County GC-EC
9099 Muscle	2	0.01-0.02 ug/g Wet wt	Not given	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

Hawk, sharp-shinned
ACCIPITER STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9100 Adipose	2	Not detected-0.67 ug/g Wet wt	Not given	Adults, wt 110 g, collected 12/71-10/74. Detection limit 0.01 ug/g. Florida, Pinellas County GC-EC
9101 Liver	2	Not detected-0.13 ug/g Wet wt	Not given	Adults, wt 110 g, collected 12/71-10/74. Detection limit 0.01 ug/g. 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Hedgehog
ERINACEUS EUROPAEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9102 Liver	5	0.01-0.03 ppm Wet wt	0.017 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.10 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
9103 Muscle	5	0.01-0.04 ppm Wet wt	0.021 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
9104 Brain	a) 1 b) 3 c) 1	a) Not detected b) Not detected-1.1 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
9105 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not detected b) Not detected-0.21 ppm c) Not detected d) Not detected e) Not applicable f) Not detected-0.14 ppm g) Not detected Wet wt	a) 0.10 ppm b) Not applicable c) Not detected d) Not detected e) 0.20 ppm f) 0.11 ppm 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
9106 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) Not detected-0.16 ppm b) Not detected-0.19 ppm c) Not dected-0.21 ppm d) Not applicable e) Not detected f) Not applicable g) Not detected-0.39 ppm h) Not detected-0.27 ppm Wet wt	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not detected f) 0.10 ppm 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
9107 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) Not detected b) Not detected-0.15 ppm c) Not detected-0.53 ppm d) Not detected-0.11 ppm e) Not detected f) Not detected-0.14 ppm g) Not detected-0.44 ppm h) Not detected Wet wt	a) Not detected b) Not applicable c) Not applicable d) Not applicable e) Not detected f) Not applicable g) Not applicable h) Not detected 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9108 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 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

Heron, little blue
FLORIDA CAERULEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9109 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
9110 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9111 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
9112 Brain	17	Not detected-0.19 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1971-77. Not detected in 16/17, detection limit 0.01 ug/g. Wt 80-108. Florida GC-EC
9113 Muscle	15	Not detected-0.39 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1971-75. Not detected in 14/15, detection limit 0.01 ug/g. Wt 80-103. 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

Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9114 Body	a) 8-10 b) 2 c) 5 d) 5 d) 5 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 0.03 ppm b) 0.15 ppm c) 0.0034 ppm d) 0.02 ppm e) 0.00076 ppm Dry wt Geometric means	a) Presidio County, TX, 1982-3 b) Monterey County, CA, 1980 c) San Luis Obispo County, CA, 1980 d) Shasta-Trinity National Forest, CA, 1980 e) Mendocino County, CA, 1980 Pooled samples. California; Texas

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Kingbird, western
TYRANNUS VERTICALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9115 Body		Not given	0.22 ppm Dry wt Geometric mean	Collected 1982-83. 3 pools, 8-10 animals in each. Texas (western), Reeeves, Hudspeth Counties
BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27				

Kite, pariah
MILVUS MIGRANS

Tissue	Cases Exposure Route	Range	Mean	General Information
9116 Adipose	3	2.454-8.148 ppm Wet wt	4.496 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9117 Blood, plasma	3	0.027-0.074 ppm Wet wt	0.044 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9118 Brain	3	Not detected-0.027 ppm Wet wt	0.003 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13				

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Kurper
SAROTHERODEN sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9119 Adipose	3 b) 1	a) 0.11-5.65 mg/kg b) Not applicable	a) 2.15 mg/kg b) 4.07 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

Lynx, pardel
LYNX PARDINA

Tissue	Cases Exposure Route	Range	Mean	General Information
9120 Liver	5	0.21-1.62 ppm Wet wt	0.589 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9121 Muscle	5	0.030-0.10 ppm Wet wt	0.072 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Meadowlark, western
STURNELLA NEGLECTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9122 Body		a) Not given b) Not given	a) 0.0029 ppm b) 0.0016 ppm Dry wt Geometric means	a) Mendocino County b) Monterey County Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Mouse, wood
APODEMUS SYLVATICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9123 Liver	6	0.08-0.13 ppm Wet wt	0.103 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9124 Muscle	6	0.02-0.10 ppm Wet wt	0.041 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Mullet
MUGIL CEPHALICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9125 Muscle	a) 10 b) 12 c) 3 d) 12	a) 0.2-8.20 ug/kg b) 0.46-11.20 ug/kg c) <0.20-18.50 ug/kg d) 2.30-8.11 ug/kg Wet wt	a) Not given b) Not given c) Not given d) Not given	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

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9126 Adipose	2	Not detected-0.12 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
9127 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9128 Brain	4	Not detected-3.80 ug/g Wet wt	Not given	Collected 1974-75, wt 730-1280 g. Not detected in 3/4, detection limit 0.01 ug/g. Florida GC-EC
9129 Liver	2	Not detected-0.05 ug/g Wet wt	Not given	Adults, collected 1974, 1160-1280 g. Detection limit 0.01 ug/g. Florida GC-EC
9130 Muscle	2	Not detected-0.05 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

Otter
LUTRA LUTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
9131 Kidney	1	Not applicable	1.8 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
9132 Liver	5	3.1-83.1 mg/kg Fat wt	26.8 mg/kg Fat wt	From group of 15, 9 with undetectable levels (limits not given) and 1 with trace level. 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Otter
LUTRA LUTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
9133 Liver	5	0.28-1.50 ppm Wet wt	0.652 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Tissue	Cases Exposure Route	Range	Mean	General Information
9134 Muscle	6	1.8-23.4 mg/kg Fat wt	8.4 mg/kg Fat wt	From group of 15, 8 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9135 Muscle	5	0.12-0.37 ppm Wet wt	0.216 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9136 Adipose	2	Not detected-0.58 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Wt 662-860 g. Florida GC-EC
9137 Muscle	5	Not detected-0.51 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Not detected in 2/5, 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, screech-, Eastern
OTUS ASIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9138 Brain	17	Not detected-0.28 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1974-78. Not detected in 16/17, detection limit 0.01 ug/g. Wt 60-191 g. Florida GC-EC
9139 Liver	4	Not detected-0.10 ug/g Wet wt	Not given	Dead or moribund insectivorous raptors collected 1974-75. Not detected in 3/4, detection limit 0.01 ug/g. Wt 80-100 g. Florida, Hillsborough and Alachua Counties GC-EC
9140 Muscle	4	Not detected-0.68 ug/g Wet wt	0.11 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1974-75. Not detected in 1/4, detection limit 0.01 ug/g. Wt 80-100 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Partridge
PERDIX PERDIX

Tissue	Cases Exposure Route	Range	Mean	General Information
9141 Adipose	16	Not given	0.160 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use prohibited since 1972. Detectable levels in 8 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

Pelican, American white
PELECANUS ERYTHRORHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
9142 Eggs	a) 10 b) 35	a) 0.3-1.8 ppm b) Not detected-1.2 ppm Wet wt	a) 0.76 ppm b) 0.36 ppm Wet wt Geometric	a) Collected 1969, detected in 10/10 b) Collected 1981, detected in 34/35 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Pelican, brown
PELECANUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9143 Eggs	a) 23 b) 61 c) 33 d) 40	a) Not detected-0.42 ug/g b) Not detected-0.79 ug/g c) Not detected-0.43 ug/g d) Not detected-0.58 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 0.16 ug/g, 1973, 0.17 ug/g, 1974, 0.05 ug/g, 1975, 0.05 ug/g b) Freshly laid, unsuccessful, mean 1971-72 was 0.24 ug/g, 1973, 0.24 ug/g, 1974, 0.07 ug/g, 1975, 0.05 ug/g c) Embryonated, successful, mean 1971-72 was 0.10 ug/g, 1973, 0.17 ug/g, 1974, 0.05 ug/g, 1975, 0.05 ug/g d) Embryonated, unsuccessful, mean 1971-72 was 0.12 ug/g, 1973, 0.20 ug/g, 1974, 0.05 ug/g, 1975, 0.06 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

Perch, white
MORONE AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
9144 Eggs	1	Not applicable	Not detected	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
9145 Muscle	1	Not applicable	Not detected	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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Perch, yellow
PERCA FLAVESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
9146 Eggs	2	Not detected	Not detected	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
9147 Muscle	2	0.009-0.030 ug/g	0.195 ug	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

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9148 Adipose	4	Not given	0.527 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use prohibited since 1972. 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9149 Body		a) Not applicable b) Not applicable	a) <0.002 mg/kg b) 0.15 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

Rabbit
ORYCTOLAGUS CUNICULUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9150 Liver	5	0.02-0.03 ppm Wet wt	0.023 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9151 Muscle	5	Not detected-0.01 ppm Wet wt	0.007 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Rat, brown
RATTUS NORVERGICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9152 Liver	5	0.12-0.14 ppm Wet wt	0.129 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9153 Muscle	5	0.01-0.07 ppm Wet wt	0.022 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
9154 Eggs	a) 15 b) 3 c) 10	a) 8-75 ppb b) 14-41 ppb c) 5-26 ppb Wet wt	a) 41.9+/-19.3 ppb b) 26.3+/-13.7 ppb c) 13.2+/-6.32 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

(next page)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Salmon, Baltic
SALMO SALAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9155 Liver	a) 15 b) 3 c) 10	a) 2-63 ppb b) 1-7 ppb c) 1-13 ppb Wet wt	a) 10.6+/-15.5 ppb b) 3.33+/-3.21 ppb c) 4.90+/-3.45 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-EC
9156 Muscle	a) 14 b) 3 c) 10	a) 15-93 ng/g b) 27-82 ng/g c) 8-41 ng/g Wet wt	a) 48.0+/-23.5 ng/g b) 55.7+/-27.6 ng/g c) 20.6+/-11.0 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

Sandpiper, western
CALIDRIS MAURI

Tissue	Cases Exposure Route	Range	Mean	General Information
9157 Body		a) Not given b) Not given	a) 0.18 ppm b) 0.087 ppm Dry wt Geometric means	a) San Luis Obispo County b) Humboldt Bay Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Scorpion, sea
MYOXOCEPHALUS SCORPIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9158 Liver	a) 5 b) 6	a) 40-130 ug/kg b) Not detected-38 ug/kg Wet wt	a) 74+/-39 ug/kg b) 12+/-17 ug/kg Wet wt	a) 1977 b) 1982 Year collected from Sogndalsfjord. Limit of detection 2 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

Seal, Arctic ringed
PHOCA HISPIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
9159 Adipose	a) 9 b) 15 c) 12 d) 16	a) Not given b) Not given c) Not given d) Not given	a) 0.27+/-0.15 ug/g b) 0.19+/-0.11 ug/g c) 0.47+/-0.20 ug/g d) 0.38+/-0.30 ug/g Wet wt	a) Females, 1972 b) Females, 1981 c) Males, 1972 d) Males, 1981 Samplings 5-6/72 and 3 and 5/81. Blubber. No significant differences: a), b) $p<0.01$ and c), d) $p<0.01$. Canada, Holman Island, NWT GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; ADIPOSE TISSUE; SEALS; POLYCHLORINATED BIPHENYLS; DDT; PESTICIDES; WATER POLLUTION; CANADA
Addison, R.F.; Zinck, M.E.; Smith, T.G. 1986 Environmental Science and Technology 20:253-256

Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9160 Adipose	a) 8 b) 9	a) 10.3-19.0 ug/g b) 2.6-11.6 ug/g Lipid wt	a) 14.45 ug/g b) 5.56 ug/g Lipid wt	a) 1-22 yr old males b) 6-31 yr old females Blubber lipid. Mean for both sexes was 9.7+/-5.4 ug/g Collected 11/72, during breeding season. Separate means calculated by extractor. 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Sole, lemon
MICROSTOMAS KITT

Tissue	Cases Exposure Route	Range	Mean	General Information
9161 Liver	a) 6 b) 10 c) 5	a) Not detected-80 ug/kg b) Not detected-44 ug/kg c) Not detected-30 ug/kg Wet wt	a) 37+/-27 ug/kg b) 12+/-20 ug/kg c) 12+/-13 ug/kg Wet wt	a) 1977, Sogndalsfjord b) 1982, Sogndalsfjord c) 1977, Dalsfjord Year and location of collection. Limit of detection 2 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

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9162 Body		a) Not given b) Not given	a) 0.0021 ppm b) 0.016 pm Dry wt Geometric means	a) Sonoma County b) Monterey County Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9163 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
9164 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9165 Body, whole	48	10-20 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Alamosa National Wildlife Refuge, CO. Length 73-188 mm, avg wt 15 g. Data also given for mixed species. Colorado 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

Swallow, barn
HIRUNDO RUSTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9166 Body		Not given	0.06 ppm Dry wt Geometric mean	Collected 1982-83. Pooled samples. Texas (western); Presidio County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Swallow, rough-winged
STELGIDOPTERYX RUFICOLLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9167 Body		Not given	0.09 ppm Dry wt Geometric mean	Collected 1982-83. Pooled samples. Texas (western), Presidio County
BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27				

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9168 Body	2	0.18-2.8 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				

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
9169 Body		a) Not given b) Not given c) Not given	a) 0.041 ppm b) 0.042 ppm c) 0.13 ppm Dry wt Geometric means	a) Yosemite b) Monterey County c) San Luis Obispo County Collected 1980. Pooled samples. California, San Luis Obispo County
BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27				

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
9170 Carcass	48	0.08-0.19 ppm Wet wt	0.04+/-0.03 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 0.05 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, common
STERNA HIRUNDO

Tissue	Cases Exposure Route	Range	Mean	General Information
9171 Blood	5	a) 1.1-2.4 ppm b) 0.02-0.03 ppm	a) 1.5 ppm b) 0.03 ppm	a) Lipid basis b) Fresh wt From pre-fledglings collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
9172 Eggs	10	0.6-1.6 ppm Fresh wt	0.9 ppm Fresh wt	Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
9173 Muscle		a) 1.5-6.4 ppm b) 0.2-0.4 ppm c) 5.5-8.8 ppm d) 0.4-0.8 ppm	a) 3.9 ppm b) 0.3 ppm c) 6.5 ppm d) 0.5 ppm	a) Pre-fledge, lipid basis, 5 cases b) Samples in a, fresh wt c) Post-fledge, lipid basis, 7 cases d) Samples in c), fresh wt Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320				

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9174 Eggs	11	22-61 ppb Wet wt	35.6+/-11.9 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 egg fat 2.72%. Finland, Baltic Sea GC-EC
9175 Liver	11	0-16 ppb Wet wt	8.82+/-4.33 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
9176 Muscle	11	5-48 ppb Wet wt	30.5+/-13.6 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-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
9177 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) 19.19 mg/kg b) 5.65 mg/kg c) 2.74 mg/kg d) 2.19 mg/kg e) 1.31 mg/kg f) 1.2 mg/ml g) 0.29 mg/ml 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 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 Cl)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
9178 Fillets	3	0.087-0.098 ppm	0.094+/-0.0031 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
9179 Adipose	a) 7 b) 6 c) 8 d) 3 e) 8	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 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

Vulture, Bengal
GYPS BENGALENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9180 Adipose	3	2.477-15.113 ppm Wet wt	6.612 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Vulture, Bengal
GYPS BENGALENSIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9181 Blood, plasma	3	0.023-0.060 ppm Wet wt	0.039 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9182 Brain	3	0.038-0.229 ppm Wet wt	0.095 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Vulture, black
CORAGYPS ATRATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9183 Adipose	1	Not applicable	0.52 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

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
9184 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.02 mg/kg b) 0.02 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Water boatman (Corixidae)
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9185 Body		Not given	1.091 ug/g Wet wt	Huntsville Spring Branch, mile 3. Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Woodcock
SCOLOPAX RUSTICOLA

Tissue	Cases Exposure Route	Range	Mean	General Information
9186 Adipose	7	Not given	2.165 mg/kg	Use prohibited since 1972. Germany, West GC
9187 Muscle	7	Not given	0.027 mg/kg	Use prohibited since 1972. 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
9188 Muscle				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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Woodpecker, acorn
MELANERPES FORMICIVORUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9189 Body		a) Not given b) Not given c) Not given	a) 0.0011 ppm b) 0.0037 ppm c) 0.0005 ppm Dry wt Geometric means	a) San Luis Obispo County b) Yosemite c) Mendocino County Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Worms, Tubificidae

Tissue	Cases Exposure Route	Range	Mean	General Information
9190 Body		a) Not given b) Not given	a) 1.513 ug/g b) 342.546 ug/g Wet wt	a) Huntsville Spring Branch, mile 6 b) Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Wrasse, ballan
LABRUS BERGGYLTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9191 Liver	a) 10 b) 10	a) Not detected-40 ug/kg b) Not detected-21 ug/kg Wet wt	a) 9+/-19 ug/kg b) 6+/-7 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalsfjord. Limit of detection 2 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

Ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro- (9 CI)
50-29-3
C14-H9-Cl5
MW 354.50, MP 108.5-109 C, BP 260 C, VP 1.5X10(E-7) mm Hg at 20 C

Yellowfish
BARBUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9192 Adipose	a) 1 b) 1	a) Not applicable b) Not applicable	a) Not detected b) 1.40	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

Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy- (9 CI)
72-43-5
C16-H15-Cl3-O2
MW 345.65, MP 78-78.2 C (dimorphic crystals) or 86-88 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9193 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

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9194 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

Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy- (9 CI)
72-43-5
C16-H15-Cl3-O2
MW 345.65, MP 78-78.2 C (dimorphic crystals) or 86-88 C

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9195 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
9196 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

Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9197 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

Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)- (8 CI); Bensene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy- (9 CI)
72-43-5
C16-H15-Cl3-O2
MW 345.65, MP 78-78.2 C (dimorphic crystals) or 86-88 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9198 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) <0.01 mg/kg b) <0.01 mg/kg c) <0.01 mg/kg d) <0.01 mg/kg e) <0.01 mg/kg f) <0.01 mg/kg g) <0.01 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

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9199 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

Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy- (9 CI)
72-43-5
C16-H15-Cl3-O2
MW 345.65, MP 78-78.2 C (dimorphic crystals) or 86-88 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
9200 Body		0.00-0.19 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=2.5 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

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9201 Body		a) Not applicable b) Not applicable	a) <0.01 m/gkg b) 0.08 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
9202 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

Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenyl)- (8 CI); Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy- (9 CI)
72-43-5
C16-H15-Cl3-O2
MW 345.65, MP 78-78.2 C (dimorphic crystals) or 86-88 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
9203 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
9204 Body		a) Not applicable b) Not applicable c) Not applicable	a) <0.01 mg/mg b) <0.01 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

Ethane, 1,2-dichloro-
107-06-2
C2-H4-Cl2
MW 98.96, MP -35.36 C, BP 83.5 C, VP 100 mm Hg at 29.4 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9205 Body		a) Not given b) Not given	a) 1.0 ppm b) 1.5 ppm Wet wt	a) Chef Menteur Pass b) 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
9206 Body		Not given	95 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

Ether, bis(2-chloroethyl) (8 CI); Ethane, 1,1'-oxybis(2-chloro- (9 CI)
111-44-4
C4-H8-Cl2-O
MW 143.02, MP -24.5 C, freezes at -50 C, BP 178 C, VP 0.7 mm Hg at 20 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9207 Body		Not given	0.6 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

Ethylene, tetrachloro- (8 CI); Ethene, tetrachloro- (9 CI)
127-18-4
C2-Cl4
MW 165.85, BP 121 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9208 Body		Not given	3.3 ppb Wet wt	Chef Menteur Pass, navigable channel 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
9209 Body		Not given	10 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

Ethylene, trichloro- (8 CI); Ethene, trichloro- (9 CI)
79-01-6
C2-H-Cl3
MW 131.40, MP 73 C, BP 87.1 C, VP 100 mm Hg at 32 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9210 Body		a) Not given b) Not given	a) 5.7 ppb b) 0.8 ppb Wet wt	a) Chef Menteur Pass b) 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

Ethylene, trichloro- (8 CI); Ethene, trichloro- (9 CI)
79-01-6
C2-H-Cl3
MW 131.40, MP 73 C, BP 87.1 C, VP 100 mm Hg at 32 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9211 Body		Not given	2.2 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

Ethylene, 1,1-dichloro- (8 CI); Ethene, 1,1-dichloro- (9 CI)
75-35-4
C2-H2-Cl2
MW 96.94, MP -122.1 C, BP 37 C, VP 100 mm Hg at 15 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9212 Body		Not given	4.4 ppb Wet wt	The Rigolets, navigable channel 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

Ethylene, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethenyl)- (9 CI)
3424-82-6
C14-H8-Cl4
MW 318.03

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9213 Body		Not applicable	0.04 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

Ethylene, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethenyl)- (9 Cl)
3424-82-6
C14-H8-Cl4
MW 318.03

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9214 Body		Not applicable	0.05 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
9215 Body		Not applicable	0.07 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
9216 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

Ethylene, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethenyl)- (9 Cl)
3424-82-6
C14-H8-Cl4
MW 318.03
Bullhead, yellow
ICTALURUS NATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9217 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
9218 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) 0.11 mg/kg b) 0.15 mg/kg c) 0.31 mg/kg d) 0.26 mg/kg e) 0.36 mg/kg f) 0.01 mg/kg g) 0.13 mg/kg h) 0.02 mg/kg i) 0.07 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
9219 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

Ethylene, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethenyl)- (9 Cl)
3424-82-6
C14-H8-Cl4
MW 318.03

Chironomid

Tissue	Cases Exposure Route	Range	Mean	General Information
9220 Body		a) Not given b) Not given	a) 14.220 ug/g b) 1.156 ug/g Wet wt	a) Huntsville Spring Branch, mile 4 b) Indian Creek, Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES

Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9221 Body		Not applicable	0.08 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, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
9222 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

Ethylene, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethenyl)- (9 CI)
3424-82-6
C14-H8-Cl4
MW 318.03

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
9223 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
9224 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
9225 Body		a) Not applicable b) Not applicable	a) 0.30 mg/kg b) 0.35 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

Ethylene, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 CI); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethenyl)- (9 CI)
3424-82-6
C14-H8-Cl4
MW 318.03

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9226 Liver	1	Not applicable	4 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				

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9227 Body		Not applicable	0.03 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
9228 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				

Ethylene, 1,1-dichloro-2-(o-chlorophenyl)-2-(p-chlorophenyl)- (8 Cl); Benzene, 1-chloro-2-(2,2-dichloro-1-(4-chlorophenyl)ethenyl)- (9 Cl)
3424-82-6
C14-H8-Cl4
MW 318.03
Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
9229 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.01 mg/kg b) 0.32 mg/kg c) 0.05 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

Water boatman (Corixidae)
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9230 Body		Not given	3.528 ug/g Wet wt	Huntsville Spring Branch, mile 3. Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Worms, Tubificidae

Tissue	Cases Exposure Route	Range	Mean	General Information
9231 Body		a) Not given b) Not given	a) 0.512 ug/g b) 18.875 ug/g Wet wt	a) Huntsville Spring Branch, mile 6 b) Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Antelope

Tissue	Cases Exposure Route	Range	Mean	General Information
9232 Liver		Not given	0.06 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC

ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; NIGERIA; TERRESTRIAL; MEAT; FOOD CONTAMINATION; MUSCLES; LIVER; ANTELOPES; CHICKENS; CATTLE; DDE; DDD; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES
Atuma, S.S. 1985 Bulletin of Environmental Contamination and Toxicology 35:735-738

Barbel
CLARIAS GARIEPINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9233 Adipose	3	7.50-28.80 mg/kg	14.67 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, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9234 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Bass, striped
MORONE SAXATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9235 Eggs	2	1.77-3.33 ug/g	0.42 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
9236 Gonads	10	0.05 ug/g-0.17 ug/g	0.72 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
9237 Muscle	a) 1 b) 10	a) Not applicable b) 0.05-0.17 ug/g	a) Not detected b) 0.101 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				

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
9238 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
9239 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
9240 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

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Bat

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9241 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
9242 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
9243 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
9244 Mammary gland				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
9245 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.				

Bat, free-tailed

Tissue	Cases Exposure Route	Range	Mean	General Information
9246 Carcass	a) 10 b) 10	a) 1.2-4.8 ppm b) 11-46 ppm Wet wt	a) 1.9 ppm b) 22 ppm Geometric Wet wt	a) Controls, Bracken Cave, TX b) Carlsbad Cavern, NM c) Artesia, NM Collected 6, 8/83. Part of study to determine extent of residues in selected wildlife and source of contamination. Detection limit 0.5 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				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Bat, little brown
MYOTIS LUCIFUGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9247 Brain	a) 5 b) 5 c) 1 d) 2 e) 11 f) 3 g) 7 Ingestion	a) Not detected-1.5 ppm b) 0.58-4.1 ppm c) Not applicable d) 240-540 ppm e) 17-630 ppm f) 260-670 ppm g) Not detected-1.3 ppm Wet wt	a) Not calculated b) 1.73 ppm c) 25 ppm d) 390 ppm e) 230 ppm f) 503 ppm g) Not calculated Wet wt	a) Baseline controls, died or killed on capture day 7/6/76 b) Baseline controls, died or killed 3-7 d after capture c) Fed 150 ppm for 4 d before death d) Fed 480 ppm for 26 and 8 d before death e) Starved after 40 d dosing on 150 ppm, deaths at 1-11 d f) Starved after 40 d dosing on 480 ppm, deaths at 2, 4 & 6 d g) Starved controls, deaths at 2-10 d Means calculated by extractor. Detection limit 0.05 ppm. Maryland, Cecil County, North East In some, tremoring behavior GLC
9248 Carcass	a) 5 b) 5 c) 1 d) 1 e) 10 f) 2 g) 7 Ingestion	a) 7-24 ppm b) 16-93 ppm c) Not applicable d) Not applicable e) 1200-71,000 ppm f) 27,000-62,000 ppm g) 18-330 ppm Lipid wt	a) 11.9 ppm b) 45.6 ppm c) 3500 ppm d) 37,000 ppm e) 29,930 ppm f) 44,500 ppm g) 101 ppm Lipid wt	a) Baseline controls, died or killed on capture day 7/6/76 b) Baseline controls, died or killed 3-7 d after capture c) Fed 150 ppm for 4 d before death d) Fed 480 ppm for 26 and 8 d before death e) Starved after 40 d dosing on 150 ppm, deaths at 1-11 d f) Starved after 40 d dosing on 480 ppm, deaths at 2, 4 & 6 d g) Starved controls, deaths at 2-10 d Means calculated by extractor. Detection limit 0.01 ppm. Maryland, Cecil County, North East In some, tremoring behavior GLC

DELIBERATE EXPOSURE; BATS; TERRESTRIAL; BRAIN; CARCASS; DDE; POLYCHLORINATED BIPHENYLS; PESTICIDES; PESTICIDE RESIDUES
Clark, D.R.; Stafford, C.J. 1981 Journal of Toxicology and Environmental Health 7:925-934

Blackbird, Brewer's
EUPHAGUS CYANOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9249 Carcass	a) 25 b) 79	a) 0.13-32.64 ppm b) 0.12-19.56 ppm Wet wt	a) 2.63+/-1.28 ppm b) 5.32+/-1.90 ppm S.E. Wet wt Arithmetic	a) Detected in 25/25 individuals b) Detected in 9/9 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Blackbird, red-winged
AGELAIUS PHOENICEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9250 Body		17-250 ppm Dry wt Range of 3 pools	95 ppm Dry wt Geometric mean	Collected 1982-83. Levels considered exceptionally high. 3 pools, 8-10 animals in each. Texas (western), Reeeves, Hudspeth Counties

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Tissue	Cases Exposure Route	Range	Mean	General Information
9251 Carcass	44	0.06-0.69 ppm Wet wt	0.20+/-0.12 ppm S.E. Wet wt Arithmetic	Detected in 4 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

Blackbird, yellow-headed
XANTHOCEPHALUS XANTHOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9252 Carcass	44	0.06-3.42 ppm Wet wt	1.60+/-0.57 ppm S.E. Wet wt Arithmetic	Detected in 5 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 0.05 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9253 Body		Not applicable	0.02 mg/ml	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
9254 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) 3.235 mg/kg b) 22.446 mg/kg c) 5.606 mg/kg d) 20.855 mg/kg e) 16.184 mg/kg f) 4.156 mg/kg g) 0.761 m/gkg h) 10.019 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 0.006 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
9255 Body, whole	40	5-7 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Flint Hills National Wildlife Refuge, KS. Length 28-68 mm, avg wt 2.6 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Boar
SUS SCROFA

Tissue	Cases Exposure Route	Range	Mean	General Information
9256 Liver	5	0.03-0.20 ppm Wet wt	0.070 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9257 Muscle	5	0.02-0.06 ppm Wet wt	0.035 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Buffalo
BUBALUS BUBALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9258 Adipose	17	0.036-0.587 ppm Wet wt	0.284+/-0.041 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9259 Bone marrow	5	0.135-1.544 ppm Wet wt	0.773+/-0.246 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9260 Brain	16	0.009-0.071 ppm Wet wt	0.047+/-0.004 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Buffalo
BUBALUS BUBALIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9261 Liver	17	0.011-0.478 ppm Wet wt	0.074+/-0.027 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9262 Muscle	22	0.001-0.011 ppm Wet wt	0.005+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Bullhead
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9263 Body		Not applicable	0.14 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Bullhead, black
ICTALURUS MELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
9264 Body, whole	192	17-22 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Union Slough National Wildlife Refuge, IA. Length 31-129 mm, avg wt 1.9 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

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9265 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
9266 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Canvasback
AYTHYA VALISINERIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9267 Adipose	5	a) 0.32-1.3 ug/g b) Not detected Wet wt	a) 0.73 ug/g b) Not detected Wet wt	a) 3 cases b) 2 cases Collected 12/6/81. Adults and juvenile, 1.15-1.58 kg, shot by hunters. Detection limit 0.01 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9268 Blood				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
9269 Muscle	4	a) 0.01-0.22 ug/g b) Not detected Wet wt	a) 0.08 ug/g b) Not detected Wet wt	a) 3 cases b) 1 case Breast. Collected 12/6/81. Adults and juvenile, 1.40-1.58 kg, shot by hunters. Detection limit 0.01 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9270 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) 0.06 mg/kg b) 0.61 mg/kg c) 0.31 mg/kg d) 1.10 mg/kg e) 0.85 mg/kg f) 0.05 mg/kg g) 0.31 mg/kg h) 0.04 mg/kg i0 0.17 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
9271 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) 2.464 mg/kg b) 10.462 mg/kg c) 21.559 mg/kg d) 47.281 mg/kg e) 24.504 mg/kg f) 11.663 mg/kg g) 2.274 mg/kg h) 12.035 mg/kg Lipid wt	a) San Joaquin River near Ft Washington b) At Firebaugh c) At Freemont Ford Sta[illegible]ational 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 0.006 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9272 Body, whole	a) 8 b) 29 c) 8	a) 12-16 ng/g b) Not given c) Not given Wet wt	a) Not given b) 44 ng/g c) 5 ng/g Wet wt	a) Alamosa National Wildlife Refuge (NWR), Co b) Arrowwood NWR, ND c) Union Slough NWR, IA Collected Jun-Aug 1980, 1981, or 1982. Length 32-176 mm, avg wt 40 g, 2.1 g, and 17 g, respectively. Data also given for mixed species. Colorado; North Dakota; 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9273 Liver	1	Not applicable	310 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

Catfish
ANARHICHAS LUPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9274 Liver	a) 6 b) 2	a) 190-660 ug/kg b) 13-57 ug/kg Wet wt	a) 451+/-200 ug/kg b) 35+/-31 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalsfjord. Limit of detection 2 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Catfish
ANARHICHAS LUPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9275 Muscle	8	0.09-0.80 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254				

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9276 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.038 ppm b) 0.042 pm c) 0.040 ppm d) 0.022 pm e) 0.010 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. Mean d) and e) exceeded by S.E. Louisiana GC-EC
9277 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				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Catfish, mud
CLARIAS LAZERA

Tissue	Cases Exposure Route	Range	Mean	General Information
9278 Muscle	11	0.11-1.81 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9279 Adipose		Not given	8 ppb	Background residue in tissue from 32 samples prepared by US Dept. of Agriculture, Food Safety and Inspection Service, Beltsville, MD and submitted as blind duplicates for analysis to 7 laboratories.

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; CATTLE; ADIPOSE TISSUE; PESTICIDES; CHLORINE ORGANIC COMPOUNDS; DDE; HEXACHLOROBENZENE; FOOD CONTAMINATION
Ault, J.A.; Spurgeon, T.E.; Gillard, D.S.; Mallinson, E.T. 1985 Journal of the Association of Official Analytical Chemists 68(5):941-944

Tissue	Cases Exposure Route	Range	Mean	General Information
9280 Liver		Not given	0.05 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC
9281 Muscle		Not given	0.03 mg/kg	Extracted fresh, expressed as mg/kg of extractable lipid. Meat samples collected at random from market places in southern Nigeria, 1982-83. Nigeria GLC

ENVIRONMENTAL EXPOSURE; PESTICIDE RESIDUES; NIGERIA; TERRESTRIAL; MEAT; FOOD CONTAMINATION; MUSCLES; LIVER; ANTELOPES; CHICKENS; CATTLE; DDE; DDD; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES
Atuma, S.S. 1985 Bulletin of Environmental Contamination and Toxicology 35:735-738

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9282 Adipose	3	0.190-0.250 ppm Wet wt	0.222 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13				

Tissue	Cases Exposure Route	Range	Mean	General Information
9283 Adipose	22	0.095-10.939 ppm Wet wt	2.377+/-0.586 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106				

Tissue	Cases Exposure Route	Range	Mean	General Information
9284 Blood, plasma	3	0.002-0.003 ppm Wet wt	0.002 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9285 Brain	3	0.001-0.002 ppm Wet wt	0.002 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13				

Tissue	Cases Exposure Route	Range	Mean	General Information
9286 Brain	19	0.009-0.052 ppm Wet wt	0.022+/-0.003 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Chicken
GALLUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9287 Liver	20	0.039-0.537 ppm Wet wt	0.253+/-0.025 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9288 Muscle	10	0.007-0.251 ppm Wet wt	0.090+/-0.024 ppm Wet wt S.E.	Collected from slaughterhouse in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION
Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Chironomid

Tissue	Cases Exposure Route	Range	Mean	General Information
9289 Body		a) Not given b) Not given	a) 40.585 ug/g b) 3.752 ug/g Wet wt	a) Huntsville Spring Branch, mile 4 b) Indian Creek, Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Chub, Rio Grande
GILA NIGRESCENS

Tissue	Cases Exposure Route	Range	Mean	General Information
9290 Body, whole	16	313-512 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Monte Vista National Wildlife Refuge, CO. Length 81-117 mm, avg wt 10 g. Data also given for mixed species. Colorado 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
9291 Liver	a) 7 b) 18 c) 3	a) 44-570 ug/kg b) 147-1993 ug/kg c) 44-160 ug/kg Wet wt	a) 339+/-143 ug/kg b) 703+/-553 ug/kg c) 104+/-58 ug/kg Wet wt	a) Sogndalsfjord, 1977 b) 1982 c) Dalsfjord, 1977 Location and year collected. 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

Coot, American
FULICA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
9292 Carcass	a) 20 b) 10 c) 10 d) 10 e) 7 f) 10 g) 10 h) 10 i) 10	a) Not detected b) Not detected c) Not detected-0.21 ppm d) Not detected-0.60 ppm e) Not detected-3.3 ppm f) Not detected-0.13 ppm g) Not detected h) Not detected-0.014 ppm i) Not detected-0.17 ppm Wet wt	a) Not detected b) Not detected c) 0.06 ppm d) 0.08 ppm e) 0.16 ppm f) 0.05 ppm g) Not detected h) 0.06 ppm i) 0.07 ppm Geometric Wet wt	a) Controls, Castro County, TX, 2/83 b) Rio Grande River drainage, Bosque del Apache (Wildlife Refuge), NM, 12/82 c) Same as b), 2/83 d) Rio Grande River drainage, Las Cruces, NM, 12/82 e) Same as d) except 2/83 f) Pecos River drainage, Bitter Lake (Wildlife Refuge), NM, 12/82 g) Same as f), except 2/83 h) Pecos River drainage, Pecos, TX 12/82 i) Same as h) except 2/83 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Cormorant, olivaceous
PHALACROCORAX OLIVACEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9293 Carcass	a) 9 b) 10	a) 0.2-2.5 ppm b) 0.9-20 ppm Wet wt	a) 0.85 ppm b) 2.60 ppm 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
9294 Eggs	a) 13 b) 18	a) 0.3-31 ppm b) 0.2-5.0 ppm Wet wt	a) 1.73 ppm b) 0.67 ppm Wet wt Geometric mean	a) 1980 b) 1981 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

Cormorant, white-breasted
PHALACROCORAX CARBO LUCIDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9295 Adipose	a) 3 b) 1	a) 10.66-14.47 mg/kg b) Not applicable	a) 11.98 mg/kg b) 14.45 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9296 Body, whole	25	a) Not given b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.012 ppm b) No detected c) Not detected d) Not detected e) 0.010 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. Means a) 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

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9297 Body		Not applicable	0.14 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Crayfish
PROCAMBARUS CLARKII

Tissue	Cases Exposure Route	Range	Mean	General Information
9298 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 Tox'cology 34:832-841				

Crow, American
CORVUS BRACHYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
9299 Brain	1	Not applicable	0.17 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				

Crow, house
CORVUS SPLENDENS

Tissue	Cases Exposure Route	Range	Mean	General Information
9300 Adipose	3	15.081-21.069 ppm Wet wt	18.595 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Crow, house
CORVUS SPLENDENS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9301 Blood, plasma	3	0.024-0.044 ppm Wet wt	0.035 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9302 Brain	3	0.025-0.064 ppm Wet wt	0.035 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Deer, fallow
DAMA DAMA

Tissue	Cases Exposure Route	Range	Mean	General Information
9303 Liver	8	0.01-0.05 ppm Wet wt	0.027 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9304 Muscle	8	0.02-0.10 ppm Wet wt	0.035 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Deer, red
CERVUS ELAPHUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9305 Liver	8	0.03-0.15 ppm Wet wt	0.039 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9306 Muscle	8	0.02-0.09 ppm Wet wt	0.035 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Dove, mourning
ZENAIDURA MACROURA

Tissue	Cases Exposure Route	Range	Mean	General Information
9307 Body		a) Not given b) Not given c) Not given	a) 2.2 ppm b) 0.114 ppm c) 0.20 ppm dry wt Geometric means	a) Reeves, Hudspeth and Presidio Counties, TX, 1982-3, 5 pools, 8-10 each b) Monterey and San Luis Obispo Counties, CA, 1980, 3 cases c) Mendocino County, CA, 1980, 3 cases, pooled Texas; California

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Dove, mourning
ZENAIDURA MACROURA

Tissue	Cases Exposure Route	Range	Mean	General Information
9308 Carcass	70	0.05-0.11 ppm Wet wt	0.05+/-0.01 ppm S.E. Wet wt Arithmetic	Detected in 5 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9309 Muscle				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

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9310 Blood, plasma	3	0.003-0.006 ppm Wet wt	0.004 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9311 Brain	3	0.005-0.021 ppm Wet wt	0.012 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA
Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9312 Carcass	16	Not detected-0.16 ppm Wet wt	0.05+/-0.05 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

Dowitcher, short-billed
LIMNODROMUS GRISEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9313 Body		Not given	1.8 ppm Dry wt Geometric mean	Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
9314 Adipose	17	a) 0.01-0.50 ug/g b) Not detected Wet wt	a) 0.14 ug/g b) Not detected Wet wt	a) 8 cases b) 9 cases Collected 10/14-12/12/81. Adults and juveniles, 1.05-1.45 kg, shot by hunters. Detection limit 0.01 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
9315 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
9316 Liver	2	<0.004 ug/g	Not given	Collected 12/12/81. Adult and juvenile, 1.40 and 1.05 kg, shot by hunters. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
9317 Muscle	17	a) 0.01-0.01 ug/g b) <0.004 ug/g c) Not detected Wet wt	a) 0.01 ug/g b) Not given c) Not detected Wet wt	a) 3 cases b) 2 cases c) 12 cases Collected 10/14-12/12/81. Adults and juveniles, 1.05-1.45 kg, shot by hunters. Detection limit 0.01 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9318 Wing		0.08+/-0.00-0.67+/-0.00 ppm S.E. Wet wt	0.32+/-0.04 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 0.39+/-0.07 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Duck, black
ANAS RUBRIPES

Tissue	Cases Exposure Route	Range	Mean	General Information
9319 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
9320 Adipose	10	a) 0.02-0.39 ug/g b) Not detected Wet wt	a) 0.098 ug/g b) Not detected Wet wt	a) 5 cases b) 5 cases Collected 10/14/81. Adults, 1.13-1.35 kg, shot by hunters. Detection limit 0.01 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9321 Body	a) 5 b) 5 c) 5 d) 5 e) 5 Ingestion	a) 0.083-0.18 mg b) 0.98-1.7 mg c) 0.16-0.19 mg d) 0.59-0.96 mg e) 2.1-11 mg	a) 0.12 mg (0.13) b) 1.3 mg (1.2) c) 0.17 mg (0.15) d) 0.75 mg (0.56) e) 4.9 mg (3.2)	a) Control diet b) Diet with 0.95 ppm DDE c) With 1 ppm Kelthane d) With 10 ppm Kelthane e) With 100 ppm Kelthane Values in parentheses are from capillary column technique, others packed column. 8 mo old males. All diets contained 0.95 ppm mirex, 0.69 ppm hexachlorobiphenyl. Each group fed max 1200 g dry food/d. 15 days on diet, 1 day without food before sacrifice. Homogenized carcasses (no heads, green glands). GC-EC

DELIBERATE EXPOSURE; INGESTION; DUCKS; BODY; AQUATIC; BIRDS; WATERFOWL; WATER POLLUTION; PESTICIDES; ACARICIDES; METABOLITES; DDE; BIOACCUMULATION; ANIMAL FEEDS
Risebrough, R.W.; Jarman, W.M.; Springer, A.M.; Walker, W.; Hunt, W.G. 1986 Environmental Toxicology and Chemistry 5:13-19

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
9322 Carcass	a) 10 b) 10 c) 10 d) 10 e) 6 f) 5 g) 5 h) 4 i) 10	a) Not detected-0.4 ppm b) Not detected-0.18 ppm c) Not detected d) Not detected e) Not detected-1.2 ppm f) 0.23-0.8 ppm g) Not detected-5.5 ppm h) 0.33-1.2 ppm i) Not detected-0.25 ppm Wet wt	a) 0.09 ppm b) 0.06 ppm c) Not detected d) Not detected e) 0.11 ppm f) 0.51 ppm g) 1.1 ppm h) 0.53 ppm i) 0.08 ppm Geometric Wet wt	a) Controls, Castro County, TX, 12/82 b) Same as a), 2/83 c) Rio Grande River drainage, Bosque del Apache (Wildlife Refuge), NM, 12/82 d) Same as c), 2/83 e) Rio Grande drainage, Hatch NM, 12/82 f) Same as e), 2/83 g) Rio Grande drainage, Las Cruces, NM, 12/82 h) Same as g), 2/83 i) Pecos River drainage, 12/82. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9323 Eggs	a) 3 b) 10	a) Not detected-0.39 ug/g b) Not detected-1.10 ug/g Wet wt	a) 0.16 ug/g b) Not given Geometric Wet wt	a) 1978, 2 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9324 Liver	11	Not applicable	<0.004 ug/g Wet wt	Collected 10/14/81. Adult, 1.13 kg, shot by hunter. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Duck, mallard
ANAS PLATYRHYNCHOS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9325 Muscle	11	a) 0.01-0.15 ug/g b) Not detected Wet wt	a) 0.04 ug/g b) Not detected Wet wt	a) 4 cases b) 7 cases Breast. Collected 6/7 and 10/14/81. Adults, 1.13-1.35 kg, shot by hunters. 1 case died of parathion poisoning. Detection limit 0.01 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9326 Wing		a) 0.02+/-0.00-0.58+/-0.00 ppm b) 0.06+/-0.02-0.85+/-0.29 ppm c) 0.04+/-0.01-0.28+/-0.11 ppm d) 0.05+/-0.01-1.22+/-1.03 ppm S.E. Wet wt	a) 0.27+/-0.03 ppm b) 0.17+/-0.03 ppm c) 0.10+/-0.02 ppm d) 0.35+/-0.08 ppm S.E. Wet wt	a) Atlandic flyway, 20 pools (total 29) b) Mississippi flyway, 64 pools (total 64) c) Central flyway, 54 pools (total 54) d) Pacific flyway, 44 pools (total 44) Ranges of means. 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 0.32+/-0.07, 0.25+/-0.04, 0.28+/-0.17, 0.22+/-0.04 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
9327 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Duck, wood
AIX SPONSA

Tissue	Cases Exposure Route	Range	Mean	General Information
9328 Adipose	4	0.01-0.14 ug/g Wet wt	0.05 ug/g Wet wt	Collected 10/14/81. Adults, 0.66-0.74 kg, shot by hunters. New York, Hudson River GC-EC
9329 Muscle	4	a) Not applicable b) <0.004 ug/g c) Not detected Wet wt	a) 0.01 ug/g b) Not given c) Not detected Wet wt	a) 1 case b) 2 cases c) 1 case Breast. Collected 10/14/81. Adults, 0.66-0.74 kg, shot by hunters. Detection limit 0.01 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

Eagle, bald
HALIAEETUS LEUCOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9330 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

Eagle, white-tailed
HALIAEETUS ALBICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
9331 Brain	1	Not applicable	721200 ng/g Wet wt	Collected in 1980-1982. Finland GC-EC
9332 Eggs	4	3400-7900 ng/g Wet wt	15000+/-19300 ng/g [sic] Wet wt	Collected in 1980-1982. Finland GC-EC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Eagle, white-tailed
HALIAEETUS ALBICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9333 Kidney	1	Not applicable	140000 ng/g Wet wt	Collected in 1980-1982. Finland GC-EC
9334 Liver	1	Not applicable	301000 ng/g Wet wt	Collected in 1980-1982. Finland GC-EC
9335 Muscle	4	41900-191000 ng/g Wet wt	988000+/-646000 ng/g [sic] Wet wt	Collected in 1980-1982. 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

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9336 Adipose	3	2.131-3.049 ppm Wet wt	3.014 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9337 Blood, plasma	3	0.026-0.033 ppm Wet wt	0.029 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9338 Brain	3	0.018-0.035 ppm Wet wt	0.027 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Egret, cattle
BUBULCUS IBIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9339 Brain	a) 2 b) 1 c) 3	a) 0.53-7.4 ppm b) Not applicable c) Not detected-0.28 ppm Wet wt	a) 4.0 ppm b) 22.0 ppm c) Not applicable 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
9340 Carcass	a) 2 b) 1 c) 1 d) 3	a) 0.23-7.3 ppm b) Not applicable c) Not applicable d) 0.18-0.44 ppm Wet wt	a) 3.8 ppm b) 0.35 ppm c) 15.0 ppm d) 0.32 ppm 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. Means in a), 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

Egret, great
CASMERODIUS ALBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9341 Brain	a) 4 b) 1	a) Not detected-0.47 ppm b) Not applicable Wet wt	a) Not applicable b) 22.0 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
9342 Carcass	a) 2 b) 2 c) 1 d) 4 e) 1	a) 0.18-0.21 ppm b) 0.11-0.15 ppm c) Not applicable d) Not detected-0.22 ppm e) Not applicable Wet wt	a) 0.20 ppm b) 0.13 ppm c) 8.5 ppm d) Not applicable e) 28.0 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. Means in a), b) 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
9349 Muscle	a) 140 b) 14 c) 15 d) 98 e) 24	a) 0.01-0.33 ug/g b) 0.02-0.19 ug/g c) 0.03-0.45 ug/g d) Not detected-0.73 ug/g e) 0.002-1.08 ug/g	a) 0.07 ug/g b) 0.06 ug/g c) 0.08 ug/g d) 0.04 ug/g e) 0.07 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
9350 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 18.53 ug/kg b) 53.65 ug/kg c) 24.2 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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
9351 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 39.54 ug/kg b) 99.44 ug/kg c) 19.09 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Fish (S. aurita)
SARDINELLA AURITA

Tissue	Cases Exposure Route	Range	Mean	General Information
9352 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 10.58 ug/kg b) 24.3 ug/kg c) 4.67 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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
9353 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 8.17 ug/kg b) 34.16 ug/kg c) 88.68 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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
9354 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 22.46 ug/kg b) 72.8 ug/kg c) 194.2 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Fish (T. nilotica)
TILAPIA NILOTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9355 Muscle	a) 11 b) 12	a) 0.2-11.00 ug/kg b) <0.2-11.00 ug/kg Wet wt	a) 5.11 ug/kg b) 4.62 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

Fish (T. zillii)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
9356 Muscle	a) 20 b) 14	a) <0.2-16.55 ug/kg b) <0.2-1.20 ug/kg Wet wt	a) Not given b) Not given	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 (Tilapia)
TILAPIA ZILLII

Tissue	Cases Exposure Route	Range	Mean	General Information
9357 Muscle	6	0.10-0.91 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Fish (Trichurus sp.)
TRICHURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9358 Muscle	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 18.53 ug/kg b) 53.4 ug/kg c) 195.9 ug/kg	a) April, 1983 b) June, 1983 c) September, 1983 Sampling dates. Caught 3-5 km from Port-Said. Detection limit 0.2 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, African bony tongue
HETEROTIS NILOTICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9359 Muscle	5	0.39-1.81 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
9360 Liver	1	Not applicable	3030 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Fish, elephant snout
MORMYRUS MACROPHTHALMUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9361 Muscle	4	0.41-0.99 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
9362 Liver	1	Not applicable	10 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
9363 Liver	1	Not applicable	20 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

Fish, snake head
CHANNA OBSCURA

Tissue	Cases Exposure Route	Range	Mean	General Information
9364 Muscle	5	0.03-0.82 ppm Fat basis	Not given	Collected 1981-1982, rivers in Bendel State, Southern Nigeria. GC-EC

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; NIGERIA; DDT; DDD; DDE; HEXACHLOROBENZENE; LINDANE; PESTICIDES; PESTICIDE RESIDUES; BIOACCUMULATION; WATER POLLUTION
Atuma, S.S.; Eigbe, C.O. 1985 International Journal of Environmental Studies 24:251-254

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Flicker, Northern
COLAPTES AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9365 Carcass	14	0.06-0.09 ppm Wet wt	0.07+/-0.01 ppm S.E. Wet wt Arithmetic	Detected in 2 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 0.05 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

Flounder
PLATICHTHYS FLESUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9366 Liver	a) 10 b) 10	a) 20-130 ug/kg b) 14-197 ug/kg Wet wt	a) 78+/-36 ug/kg b) 57+/-67 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalfjord. 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

Francolin
FRANCOLINIS NATALENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9367 Adipose	11	0.06-40.00 mg/kg	19.86 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Frog
RANA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9368 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
9369 Muscle	25	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) 0.024 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 0.05 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

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9370 Adipose	16	0.017-0.467 ppm Wet wt	0.093+/-0.029 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9371 Bone marrow	8	0.093-1.806 ppm Wet wt	0.358+/-0.207 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Goat
CAPRA sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9372 Brain	14	0.002-0.008 ppm Wet wt	0.004+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9373 Liver	18	0.002-0.115 ppm Wet wt	0.028+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC
9374 Muscle	24	0.001-0.003 ppm Wet wt	0.002+/-0.001 ppm Wet wt S.E.	Collected from slaughterhouses in and around Lucknow. Survey of organochlorines also included tissues from buffalo and chickens. Sensitivity 0.002 ppm. India, Uttar Pradesh GLC

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; GOATS; BUFFALOS; CHICKENS; MUSCLES; BRAIN; LIVER; ADIPOSE TISSUE; BONE MARROW; DDT; LINDANE; BENZENE HEXACHLORIDE; DDE; TDE; PESTICIDES; PESTICIDE RESIDUES; FOOD CONTAMINATION

Kaphalia, B.S.; Seth, T.D. 1981 Pesticides Monitoring Journal 15(2):103-106

Godwit, marbled
LIMOSA FEDOA

Tissue	Cases Exposure Route	Range	Mean	General Information
9375 Carcass	11	Not applicable	0.63 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Goose, Canada
BRANTA CANADENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9376 Adipose	9	a) 0.01-0.45 ug/g b) Not detected Wet wt	a) 0.176 ug/g b) Not detected Wet wt	a) 5 cases b) 4 cases Collected 6/2 and 6/7/82. Adults, 4.43-6.14 kg, died of parathion poisoning. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Great South Bay GC-EC
9377 Liver	1	Not applicable	0.01 ug/g Wet wt	Collected 6/2/82. Adult, 5.68 kg, died of parathion poisoning. New York, Great South Bay GC-EC
9378 Muscle	9	a) 0.01-0.01 ug/g b) Not detected Wet wt	a) 0.01 ug/g b) Not detected Wet wt	a) 4 cases b) 5 cases Breast. Collected 6/2 and 6/7/82. Adults, 4.43-6.14 kg, died of parathion poisoning. Detection limit 0.01 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

Goose, Egyptian
ALOPOCHEN AEGYPTIACUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9379 Adipose	3	0.30-4.92 mg/kg	2.073 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
9380 Adipose	5	0.29-12.85 ppm Wet wt	8.26 ppm Wet wt	Collected 1972-73, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Goshawk
ACCIPITER GENTILIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9381 Brain	6	0.76-1.11 ppm Wet wt	0.94 ppm Wet wt	Collected 1972-73, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9382 Liver	7	1.35-20.58 ppm Wet wt	11.48 ppm Wet wt	Collected 1972-73, 57.1% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9383 Muscle	7	0.50-11.76 ppm Wet wt	3.33 ppm Wet wt	Collected 1972-73, 71.4% 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

Grackle, great-tailed
QUISCALUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9384 Body		a) 31-79 ppm b) 31-79 ppm c) 31-79 ppm Dry wt	a) 52 ppm b) 54 ppm c) 55 ppm Dry wt Geometric means	a) Hudspeth and Presidio Counties, 4 pools, 8-10 animals each b) Reeves, Hudspeth and Presidio Counties, 4 pools, 10 animals each c) Reeves County, 1 pool, 3 animals Collected 1982-83. Levels considered exceptionally high. Texas (western)

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Grebe, western
AECHMOPHORUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9385 Eggs	12	0.84-2.3 ppm Wet wt	1.40 ppm Wet wt Geometric	Collected 1981, detected in 12/12. 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				

Grosbeak, black-headed
PHEUCTICUS MELANOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9386 Body		a) Not given b) Not given	a) 0.125 ppm b) 0.200 ppm Dry wt Geometric means	a) Monterey County b) Yosemite Collected 1980. Pooled samples. California, San Luis Obispo County
BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27				

Guillemot, common
URIA AALGE

Tissue	Cases Exposure Route	Range	Mean	General Information
9387 Eggs	a) 10 b) 9 c) 7 d) 8	a) Not given b) Not given c) Not given d) Not given	a) 0.94+/-0.23 ug/g b) 0.69+/-0.24 ug/g c) 0.49+/-0.09 ug/g d) 0.33+/-0.07 ug/g Wet wt	a) East Finnmark b) West Finnmark c) South Troms/North Nordland d) Lofoten Collected 1983. Levels were well below those at which breeding could be expected to be affected. Norway GC
CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Guillemot, common
URIA AALGE

Tissue	Cases Exposure Route	Range	Mean	General Information
9388 Eggs		630-60 mg/kg Fat wt basis Range of means	Not given	Collected from an island, Stora Karlso, in Baltic proper, 1968-85. Guillemots feed on herring and stay in the Baltic all year. Nesting island is remote from local pollution discharges. Maximum to minimum, decreasing during study period. Estimated from graph. Sweden

FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; WATER POLLUTION; MUSCLES; BIRDS; EGGS; SWEDEN; POLYCHLORINATED BIPHENYLS; DDE; DDT; TREND MONITORING
Olsson, M.; Reutergardh, L. 1986 Ambio 15(2):103-109

Guinea fowl
NUMIDA MELEAGRIS MITRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9389 Adipose	a) 6 b) 1	a) 1.54-27.61 mg/kg b) Not applicable	a) 13.76 mg/kg b) 0.34 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
9390 Blood	6	a) Not detected-28.7 ppm b) Not detected-0.20 ppm	a) 8.1 ppm b) 0.06 ppm	a) Lipid basis b) Fresh wt From pre-fledglings collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Knife Island GC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE
Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9391 Blood, plasma	a) 4 b) 2 c) 5 d) 2 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 1.5+/-0.6 ug/kg b) 1.7+/-0.2 ug/kg c) 1.4+/-0.3 ug/kg d) 1.2+/-0.5 ug/kg Wet wt	a) [14-C]-DDE, male, 1980 b) Female, 1980 c) Male, 1981 d) Female, 1981 Breeding adults trapped 5/80, dosed with 73.9 ug [14-C]-DDE (3.9X10(E+6) dpm). Retrapped 7 d or 1 yr after dosing. Lake Huron, Chantry Island Scintillation counting
9392 Body, whole	17 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) 12.5+/-2.7 mg/kg b) 7.0+/-2.7 mg/kg c) 11.0+/-3.7 mg/kg d) 6.2+/-2.3 mg/kg e) 52.9+/-17.5 ug/kg f) 51.5+/-13.1 ug/kg g) 21.2+/-5.9 ug/kg h) 20.7+/-7.8 ug/kg Wet wt	a) Native DDE, male, 1980, 4 cases b) Female, 1980, 5 cases c) Male, 1981, 10 cases d) Female, 1981, 2 cases e) [14-C]-DDE, male, 1980, 4 cases f) Female, 1980, 5 cases g) Male, 1981, 10 cases h) Female, 1981, 2 cases Breeding adults trapped 5/80, dosed with 73.9 ug [14-C]-DDE (3.9X10(E+6) dpm). Retrapped 7 d or 1 yr after dosing. Lake Huron, Chantry Island GC; Scintillation counting
9393 Brain	17 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) 0.7+/-0.4 mg/kg b) 1.0+/-1.7 mg/kg c) 1.1+/-0.5 mg/kg d) 0.5+/-0.1 mg/kg e) 3.4+/-1.3 ug/kg f) 3.1+/-0.8 ug/kg g) 2.4+/-1.0 ug/kg h) 2.0+/-0.8 ug/kg Wet wt	a) Native DDE, male, 1980, 4 cases b) Female, 1980, 5 cases c) Male, 1981, 10 cases d) Female, 1981, 2 cases e) [14-C]-DDE, male, 1980, 4 cases f) Female, 1980, 5 cases g) Male, 1981, 10 cases h) Female, 1981, 2 cases Breeding adults trapped 5/80, dosed with 73.9 ug [14-C]-DDE (3.9X10(E+6) dpm). Retrapped 7 d or 1 yr after dosing. Lake Huron, Chantry Island GC; Scintillation counting

BIRDS; AQUATIC; DELIBERATE EXPOSURE; DDE; BODY; MUSCLES; LIVER; BRAIN; BLOOD PLASMA; EGGS; LAKE HURON; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS
Norstrom, R.J.; Clark, T.P.; Jeffrey, D.A.; Won, H.T.; Gilman, A.P. 1986 Environmental Toxicology and Chemistry 5:41-48

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9394 Eggs	a) 9 b) 11 c) 13 d) 10	a) Not given b) Not given c) Not given d) Not given	a) 1.33+/-0.52 ug/g b) 1.29+/-0.57 ug/g c) 0.62+/-0.28 ug/g d) 1.05+/-0.70 ug/g Wet wt	a) East Finnmark b) West Finnmark c) South Troms/North Nordland d) Lofoten Collected 1983. Levels were well below those at which breeding could be expected to be affected. Norway GC

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Tissue	Cases Exposure Route	Range	Mean	General Information
9395 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.91 ppm b) 7.82 ppm c) 4.94 ppm d) 13.40 ppm e) 7.18 ppm f) 5.03 ppm	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

Tissue	Cases Exposure Route	Range	Mean	General Information
9396 Eggs	6 Ingestion	a) Not given b) Not given	a) 2.6+/-0.5 mg/kg b) 10.4+/-4.7 ug/kg Wet wt	a) Native DDE, measured in 3 eggs from each of 2 females b) [14-C]-DDE, same cases Eggs collected 1981, 1 yr after dosing adults with 73.9 ug [14-C]-DDE (3.9X10(E+6) dpm). Lake Huron, Chantry Island GC; Scintillation counting

BIRDS; AQUATIC; DELIBERATE EXPOSURE; DDE; BODY; MUSCLES; LIVER; BRAIN; BLOOD PLASMA; EGGS; LAKE HURON; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS
Norstrom, R.J.; Clark, T.P.; Jeffrey, D.A.; Won, H.T.; Gilman, A.P. 1986 Environmental Toxicology and Chemistry 5:41-48

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9397 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
9398 Eggs	10	3.4-12.4 ppm Fresh wt	7.6 ppm Fresh wt	Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Knife Island GC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE
Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320

Tissue	Cases Exposure Route	Range	Mean	General Information
9399 Liver	17 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) 2.7+/-0.7 mg/kg b) 1.2+/-0.5 mg/kg c) 4.3+/-1.3 mg/kg d) 4.1+/-3.5 mg/kg e) 12.4+/-3.4 ug/kg f) 9.6+/-3.3 ug/kg g) 10.2+/-3.7 ug/kg h) 11.5+/-2.0 ug/kg Wet wt	a) Native DDE, male, 1980, 4 cases b) Female, 1980, 5 cases c) Male, 1981, 10 cases d) Female, 1981, 2 cases e) [14-C]-DDE, male, 1980, 4 cases f) Female, 1980, 5 cases g) Male, 1981, 10 cases h) Female, 1981, 2 cases Breeding adults trapped 5/80, dosed with 73.9 ug [14-C]-DDE (3.9X10(E+6) dpm). Retrapped 7 d or 1 yr after dosing. Lake Huron, Chantry Island GC; Scintillation counting

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Gull, herring
LARUS ARGENTATUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9400 Muscle	17 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) 5.4+/-2.1 mg/kg b) 3.4+/-1.3 mg/kg c) 6.6+/-2.8 mg/kg d) 4.1+/-0.1 mg/kg e) 26+/-8.8 ug/kg f) 31.6+/-17.9 ug/kg g) 13.4+/-5.4 ug/kg h) 16.0+/-7.1 ug/kg Wet wt	a) Native DDE, male, 1980, 4 cases b) Female, 1980, 5 cases c) Male, 1981, 10 cases d) Female, 1981, 2 cases e) [14-C]-DDE, male, 1980, 4 cases f) Female, 1980, 5 cases g) Male, 1981, 10 cases h) Female, 1981, 2 cases Breeding adults trapped 5/80, dosed with 73.9 ug [14-C]-DDE (3.9X10(E+6) dpm). Retrapped 7 d or 1 yr after dosing. Lake Huron, Chantry Island GC; Scintillation counting

BIRDS; AQUATIC; DELIBERATE EXPOSURE; DDE; BODY; MUSCLES; LIVER; BRAIN; BLOOD PLASMA; EGGS; LAKE HURON; COMPARATIVE EVALUATIONS; CHLORINE ORGANIC COMPOUNDS
Norstrom, R.J.; Clark, T.P.; Jeffrey, D.A.; Won, H.T.; Gilman, A.P. 1986 Environmental Toxicology and Chemistry 5:41-48

Tissue	Cases Exposure Route	Range	Mean	General Information
9401 Muscle		a) 1.0-18.7 ppm b) 0.1-1.1 ppm c) 2.2-49.4 ppm d) 0.1-2.1 ppm	a) 7.2 ppm b) 0.4 ppm c) 17.0 ppm d) 0.8 ppm	a) Pre-fledge, lipid basis, 10 cases b) Samples in a, fresh wt c) Post-fledge, lipid basis, 4 cases d) Samples in c), fresh wt Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Knife Island GC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE
Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
9402 Carcass	a) 10 b) 10	a) 0.7-4.8 ppm b) 0.7-5.5 ppm Wet wt	a) 2.21 ppm b) 1.79 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. Texas, Galveston Bay CC; GLC-EC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Gull, laughing
LARUS ATRICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9403 Eggs	a) 20 b) 20	a) 0.3-4.5 ppm b) 0.2-2.8 ppm Wet wt	a) 0.72 ppm b) 0.88 ppm Wet wt Geometric mean	a) 1980 b) 1981 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
9404 Blood	10	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Lipid basis b) Fresh wt From pre-fledglings collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE
Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320

Tissue	Cases Exposure Route	Range	Mean	General Information
9405 Brain	3	0.12-1.9 ug/g Wet wt	0.79 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Gull, ring-billed
LARUS DELAWARENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9406 Eggs	10	0.9-3.2 ppm Fresh wt	2.1 ppm Fresh wt	Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
9407 Muscle		a) Not detected-3.0 ppm b) Not detected-0.2 ppm c) 4.3-6.1 ppm d) 0.3-0.4 ppm	a) 2.2 ppm b) 0.1 ppm c) 5.2 ppm d) 0.3 ppm	a) Pre-fledge, lipid basis, 10 cases b) Samples in a, fresh wt c) Post-fledge, lipid basis, 2 cases d) Samples in c), fresh wt Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC

ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE
Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320

Haddock
MELANOGRAMMUS AEGLEFINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9408 Liver	a) 9 b) 7	a) 70-450 ug/kg b) 52-478 ug/kg Wet wt	a) 232+/-153 ug/kg b) 236+/-159 ug/kg Wet wt	a) 1977 b) 1982 Year collected from Sogndalsfjord. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hare, brown
LEPUS CAPENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9409 Liver	5	0.02-0.09 ppm Wet wt	0.050 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9410 Muscle	5	0.02-0.04 ppm Wet wt	0.029 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Harrier, northern
CIRCUS CYANEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9411 Brain	1	Not applicable	94.27 ppm Wet wt	Collected 1975, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9412 Heart	1	Not applicable	17.42 ppm Wet wt	Collected 1975, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9413 Liver	1	Not applicable	11.43 ppm Wet wt	Collected 1975, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9414 Muscle	1	Not applicable	41.24 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, Cooper's
ACCIPITER COOPERII

Tissue	Cases Exposure Route	Range	Mean	General Information
9415 Brain	1	Not applicable	8.90 ug/g Wet wt	Collected 1/1/75. Florida, Duval County GC-EC
9416 Liver	1	Not applicable	23.00 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
9417 Liver	1	Not applicable	0.15 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
9418 Muscle	1	Not applicable	5.70 ug/g	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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, Cooper's
ACCIPITER COOPERII

Tissue	Cases Exposure Route	Range	Mean	General Information
9419 Muscle	1	Not applicable	0.47 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
9420 Adipose	1	Not applicable	781.10 ppm Wet wt	Collected 1967-75, 100% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9421 Brain	2	0.43-3.27 ppm Wet wt	1.85 ppm Wet wt	Collected 1967-75, 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
9422 Brain	9	0.13-1.30 ug/g Wet wt	0.66 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1974-81. Mean calculated by extractor. Wt 360-660 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, red-shouldered
BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9423 Heart	2	Not applicable	4.54 ppm Wet wt	Collected 1967-75, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9424 Liver	2	Not applicable	0.36 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
9425 Liver	5	0.23-1.60 ug/g Wet wt	0.85 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
9426 Muscle	2	0.93-4.86 ppm Wet wt	2.90 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, red-shouldered
BUTEO LINEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9427 Muscle	6	0.20-2.50 ug/g wet wt	4.85 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
9428 Adipose	9	Not applicable	1.90 ug/g wet wt	Juvenile, collected 12/28/74, wt 1130 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
9429 Brain	5	0.88-7.31 ppm Wet wt	4.10 ppm Wet wt	Collected 1971-78, 40.0% 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
9430 Brain	2	0.02-0.04 ug/g Wet wt	0.03 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, red-tailed
BUTEO JAMAICENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9431 Heart	6	0.004-0.34 ppm Wet wt	0.16 ppm Wet wt	Collected 1971-78, 50.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9432 Liver	6	0.21-0.43 ppm Wet wt	0.32 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9433 Liver	2	0.04-0.12 ug/g Wet wt	0.08 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
9434 Muscle	6	0.002-3.10 ppm Wet wt	0.85 ppm Wet wt	Collected 1971-78, 66.7% 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, red-tailed
BUTEO JAMAICENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9435 Muscle	2	0.06-0.09 ug/g Wet wt	Not given	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

Hawk, rough-legged
BUTEO LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9436 Adipose	1	Not applicable	4.32 ppm Wet wt	Collected 1977-78, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9437 Muscle	2	Not applicable	0.02 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

Hawk, sharp-shinned
ACCIPITER STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9438 Adipose	2	19.00-22.00 ug/g Wet wt	20.50 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, sharp-shinned
ACCIPITER STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9439 Brain	1	Not applicable	12.31 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
9440 Brain	2	0.25-8.50 ug/g Wet wt	4.38 ug/g Wet wt	Adults, collected 12/71-10/74, wt 110 g. Mean calculated by extractor. Florida GC-EC
9441 Liver	2	0.24-2.10 ug/g Wet wt	1.17 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
9442 Muscle	1	Not applicable	4.73 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Hawk, sharp-shinned
ACCIPITER STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9443 Muscle	2	0.66-0.70 ug/g Wet wt	0.68 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

Hedgehog
ERINACEUS EUROPAEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9444 Liver	5	0.13-0.14 ppm Wet wt	0.131 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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
9445 Muscle	5	0.07-0.13 ppm Wet wt	0.104 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
9446 Brain	a) 1 b) 3 c) 1	a) Not applicable b) 1.6-230.0 ppm c) Not applicable Wet wt	a) 3.4 ppm b) 80.0 ppm c) 0.32 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. Means in b) calculated by extractor. Detection limit 0.1 ppm. GLC
9447 Carcass	a) 1 b) 3 c) 5 d) 1 e) 1 f) 3 g) 1	a) Not applicable b) 1.1-3.8 ppm c) 0.6-0.95 ppm d) Not applicable e) Not applicable f) 7.0-170.0 ppm g) Not applicable Wet wt	a) 6.8 ppm b) 2.1 ppm c) 0.71 ppm d) 6.4 ppm e) 18.0 ppm f) 61.4 ppm g) 0.74 ppm Wet wt	a) Massachusetts, adult, probably 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. Means in b), c), 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

Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Tissue	Cases Exposure Route	Range	Mean	General Information
9448 Eggs	a) 10 b) 10 c) 10	a) 0.33-24 ppm b) 1.4-14 ppm c) 2.8-11 ppm Wet wt	a) 1.4 ppm b) 4.1 ppm c) 6.0 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Heron, black-crowned night
NYCTICORAX NYCTICORAX

Tissue	Cases Exposure Route	Range	Mean	General Information
9449 Eggs	12	0.6-5.6 ppm Wet wt	1.7 ppm Wet wt Geometric	Collected from 12 nests 6/10-14/83. Controls collected from Patuxent Wildlife Research Center. California, San Francisco Bay National Wildlife Refuge Crown-rump length and femur length were shorter in study embryos than in controls. GLC; EC

BIRDS; EGGS; POLYCHLORINATED BIPHENYLS; DDE; WATER POLLUTION; CALIFORNIA; ENVIRONMENTAL EXPOSURE; ANIMAL POPULATIONS
Hoffman, D.J.; Rattner, B.A.; Bunck, C.M.; Krynitsky, A.; Ohlendorf, H.M.; Lowe, R.W. 1986 Journal of Toxicology and Environmental Health 19:383-391

Heron, great blue
ARDEA HERODIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
9450 Brain	a) 3 b) 3 c) 3 d) 1 e) 1 f) 3 g) 14 h) 3	a) 0.51-9.7 ppm b) 0.30-62.0 ppm c) 2.6-28 ppm d) Not applicable e) Not applicable f) Not detected-0.76 ppm g) Not detected-82.0 ppm h) 7.1-31.0 ppm Wet wt	a) 5.0 ppm b) 27.4 ppm c) 12.9 ppm d) 62.0 ppm e) 5.3 ppm f) Not applicable g) Not applicable h) 18.0 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) 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 a)-c), h) calculated by extractor. Detection limit 0.1 ppm. GLC
9451 Carcass	a) 2 b) 6 c) 5 d) 3 e) 1 f) 7 g) 15 h) 1	a) 1.1-1.3 ppm b) 0.38-39.0 ppm c) 0.48-130.0 ppm d) 4.3-20.0 ppm e) Not applicable f) 0.74-26.0 ppm g) Not detected-34.0 ppm h) Not applicable Wet wt	a) 1.2 ppm b) 13.2 ppm c) 29.8 ppm d) 12.1 ppm e) 1.4 ppm f) 10.4 ppm g) Not applicable h) 7.5 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) and endrin (1) poisoning, 4/22-6/76 h) Wisconsin, adult, 5/78 Part of large study of organochlorines and mortality in herons. Means in a)-d), 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
Ohlendorf, H.M.; Swineford, D.M.; Locke, L.N. 1981 Pesticides Monitoring Journal 14(4):125-135

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9452 Carcass	a) 1 b) 6 c) 4	a) Not applicable b) Not detected-0.14 ppm c) 0.68-2.4 ppm Wet wt	a) 0.45 ppm b) Not applicable c) Not applicable Wet wt	a) Massachusetts, adult, probably paralytic shellfish poisoning, 9/15/72 b) Maryland, chicks, 6/14/69 c) Alabama, adults and fledged immature, shot, 7/21,22/70 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
9453 Carcass	a) 6 b) 1	a) 0.25-1.0 ppm b) Not applicable Wet wt	a) 0.49 ppm b) 0.14 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. Means 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

Heron, Louisiana
HYDRANASSA TRICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9454 Carcass	a) 2 b) 1	a) 0.12-3.0 ppm b) Not applicable Wet wt	a) 1.56 ppm b) 0.11 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. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Heron, yellow-crowned night
NYCTANASSA VIOLACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9455 Body, whole	10	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1.182 ppm b) 0.125 ppm c) 0.069 ppm d) 0.307 ppm e) 2.00 ppm f) 0.172 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), b), c), d) 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
Haesloop, U.; Schirmer, M. 1985 Bulletin of Environmental Contamination and Toxicology 34:832-841

Tissue	Cases Exposure Route	Range	Mean	General Information
9456 Carcass	3	0.25-1.90 ppm Wet wt	0.83 ppm Wet wt	Alabama, adult and fledged immatures shot 7/70 Part of large study of organochlorines and mortality in herons. Mean 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

Jay, Steller's
CYANOCITTA STELLERI

Tissue	Cases Exposure Route	Range	Mean	General Information
9457 Carcass	26	0.06-0.14 ppm Wet wt	0.07+/-0.03 ppm S.E. Wet wt Arithmetic	Detected in 3 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 0.05 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Kestrel, American
FALCO SPARVERIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9458 Brain	17	Not detected-1.70 ug/g Wet wt	0.72 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1971-77. Not detected in 3/17, detection limit 0.01 ug/g. Mean calculated by extractor. Wt 80-108 g. Florida GC-EC
9459 Liver	15	0.38-11.00 ug/g Wet wt	2.89 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1971-75. Mean calculated by extractor. Wt 80-103 g. Florida GC-EC
9460 Muscle	15	0.44-9.80 ug/g Wet wt	3.42 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

Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9461 Body	a) 8-10 b) 2 c) 5 d) 5 d) 5 e) 2	a) Not given b) Not given c) Not given d) Not given e) Not given	a) 71 ppm b) 27 ppm c) 21 ppm d) 2.7 ppm e) 0.02 ppm Dry wt Geometric means	a) Presidio County, TX, 1982-3 b) Monterey County, CA, 1980 c) San Luis Obispo County, CA, 1980 d) Shasta-Trinity National Forest, CA, 1980 e) Mendocino County, CA, 1980 Pooled samples. California; Texas

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9462 Carcass	a) 19 b) 66	a) 0.15-58.80 ppm b) 2.40-10.45 ppm Wet wt	a) 11.43+/-3.38 ppm b) 5.59+/-1.16 ppm S.E. Wet wt Arithmetic	a) Detected in 19/19 individuals b) Detected in 7/7 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

Kingbird, western
TYRANNUS VERTICALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9463 Body		170-270 ppm Dry wt	203 ppm Dry wt Geometric mean	Levels among highest reported in North American birds during last 2 decades. Collected 1982-83. Range of 3 pools, 8 to 10 animals/pool. Texas (western), Reeeves, Hudspeth Counties

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Tissue	Cases Exposure Route	Range	Mean	General Information
9464 Carcass	a) 52 b) 145 c) 20 d) 20	a) 0.14-14 ppm b) Not detected-47 ppm c) 0.11-2.5 ppm d) Not detected-1.3 ppm Wet wt	a) 2.3 ppm b) 4.9 ppm c) 0.345 ppm d) 0.18 ppm Geometric Wet wt	a) From sites in Rio Grande River systems, 4, 5/83 b) From sites in Pecos River systems, 4, 5/83 c) Controls, Ft. Sumner, NM, 12/82, 2/83 Means in c, d calculated by extractor. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Kingbird, western
TYRANNUS VERTICALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9465 Carcass	10	Not applicable	0.05 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. 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				

Kite, pariah
MILVUS MIGRANS

Tissue	Cases Exposure Route	Range	Mean	General Information
9466 Adipose	3	4.652-60.00 ppm Wet wt	23.108 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9467 Blood, plasma	3	0.043-0.192 ppm Wet wt	0.100 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9468 Brain	3	0.026-0.053 ppm Wet wt	0.038 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Kittiwake, black-legged
RISSA TRIDACTYLA

Tissue	Cases Exposure Route	Range	Mean	General Information
9469 Eggs	a) 11 b) 10 c) 10	a) Not given b) Not given c) Not given	a) 0.62+/-0.41 ug/g b) 0.47+/-0.55 ug/g c) 0.16+/-0.03 ug/g Wet wt	a) East Finnmark b) West Finnmark c) Lofoten Collected 1983. Levels were well below those at which breeding could be expected to be affected. Norway GC

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Kurper
SAROTHERODEN sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9470 Adipose	3 b) 1	a) 4.85-18.63 mg/kg b) Not applicable	a) 9.61 mg/kg b) 3.07 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

Lizard, whiptail
CNEMIDOPHORUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9471 Carcass	a) 30 b) 75	a) Not detected-4.8 ppm b) Not detected-104 ppm Wet wt	a) 0.47 ppm b) 1.8 ppm Geometric Wet wt	a) From sites in Rio Grande River system b) From sites in Pecos River system 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Lynx, pardel
LYNX PARDINA

Tissue	Cases Exposure Route	Range	Mean	General Information
9472 Liver	5	0.18-13.5 ppm Wet wt	1.533 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9473 Muscle	5	0.29-0.63 ppm Wet wt	0.472 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Magpie, black-billed
PICA PICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9474 Brain	2	0.21-6.6 ug/g Wet wt	3.40 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 1978-1979. Oregon; Washington GLC
9475 Eggs	9	Not detected-1.45 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. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Meadowlark
STURNELLA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9476 Carcass	81	0.15-2.13 ppm Wet wt	0.61+/-0.24 ppm S.E. Wet wt Arithmetic	Detected in 8 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. One composite with 6.11 ppm DDE excluded from tabulation. 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

Meadowlark, western
STURNELLA NEGLECTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9477 Body		a) Not given b) Not given	a) 0.26 ppm b) 0.23 ppm Dry wt	a) Mendocino County b) Monterey County Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Merganser, American
MERGUS MERGANSER

Tissue	Cases Exposure Route	Range	Mean	General Information
9478 Adipose	1	Not detected	Not detected	Collected 11/5/81. Juvenile, 1.23 kg, shot by hunter. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
9479 Muscle	1	Not detected	Not detected	Breast. Collected 11/5/81. Juvenile, 1.23 kg, shot by hunter. Detection limit 0.01 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Merganser, hooded
LOPHODYTES CACULLATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9480 Adipose	1	Not detected	Not detected	Collected 10/14/81. Juvenile, 0.58 kg, shot by hunter. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
9481 Muscle	1	Not detected	Not detected	Breast. Collected 10/14/81. Juvenile, 0.58 kg, shot by hunter. Detection limit 0.01 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

Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
9482 Body, whole	a) 95 b) 80 c) 96 d) 480	a) 10-82 ng/g b) 5-6 ng/g c) 11-44 ng/g d) Not given Wet wt	a) Not given b) Not given c) Not given d) 5 ng/g Wet wt	a) Monte Vista National Wildlife Refuge (NWR), CO b) Arapaho NWR, CO c) Arrowwood NWR, ND d) Union Slough NWR, IA Collected Jun-Aug 1980, 1981, or 1982. Length 24-81 mm, avg wt 3.1 g, 2.9 g, and 1.3 g, and 0.5 g, respectively. Data also given for mixed species. Colorado; North Dakota; 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

Minnow, plains
HYBOGNATHUS PLACITA

Tissue	Cases Exposure Route	Range	Mean	General Information
9483 Body, whole	42	Not given	11 ng/g Wet wt	Collected Jun-Aug 1980, 1981, or 1982 at Alamosa National Wildlife Refuge, CO. Length 42-61 mm, avg wt 1.2 g. Data also given for mixted species. Colorado 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Mouse, wood
APODEMUS SYLVATICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9484 Liver	6	0.23-0.27 ppm Wet wt	0.256 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9485 Muscle	6	0.13-0.34 ppm Wet wt	0.212 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Mullet
MUGIL CEPHALICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9486 Muscle	a) 10 b) 12 c) 3 d) 12	a) <0.2-26.67 ug/kg b) <0.2-3.40 ug/kg c) <0.2-2.00 ug/kg d) <0.2-7.73 ug/kg Wet wt	a) Not given b) Not given c) Not given d) Not given	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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9487 Adipose	2	0.81-0.91 ug/g Wet wt	0.86 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9488 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9489 Brain	4	Not detected-3.60 ug/g Wet wt	Not given	Collected 1974-75, wt 730-1280 g. Not detected in 1/4, 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
9490 Eggs	7	900-5600 ng/g Wet wt	1860+/-1700 ng/g Wet wt	Collected in 1980-1982. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Osprey
PANDION HALIAETUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9491 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
9492 Liver	2	0.02-0.37 ug/g Wet wt	0.20 ug/g Wet wt	Adults, collected 1974, 1160-1280 g. Mean calculated by extractor. Florida GC-EC
9493 Muscle	2	0.11-0.17 ug/g Wet wt	0.14 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
9494 Embryo	1	Not applicable	28.5 mg/kg	Part of group collected from various sites between 12/82 and 3/85. Mean calculated by extractor. Great Britain GC-EC
9495 Liver	9	0.3-115.7 mg/kg Fat wt	40.6 mg/kg Fat wt	From group of 15, 3 with undetectable levels (limits not given) and 2 with trace level. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Otter
LUTRA LUTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
9496 Liver	5	1.97-4.12 ppm Wet wt	2.850 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Tissue	Cases Exposure Route	Range	Mean	General Information
9497 Muscle	10	1.6-85.0 mg/kg Fat wt	17.8 mg/kg Fat wt	From group of 15, 3 with undetectable levels (limits not given) and with 1 trace level. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9498 Muscle	5	0.39-0.87 ppm Wet wt	0.583 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, barn-, common
TYTO ALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
9499 Adipose	1	Not applicable	2.30 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
9500 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
9501 Liver	1	Not applicable	0.11 ug/g Wet wt	Collected 3/12/75. Adult, wt 400 g. Florida, Hillsborough County GC-EC
9502 Muscle	1	Not applicable	1.50 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9503 Adipose	6	Not applicable	8.30 ppm Wet wt	Collected 1966-79, 16.7% 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
9504 Adipose	2	2.10-30.00 ug/g Wet wt	16.05 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1973-77. Mean calculated by extractor. Wt 662-860 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
9505 Brain	11	0.14-4.13 ppm Wet wt	1.68 ppm Wet wt	Collected 1966-79, 36.4% 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
9506 Brain	10	Not detected-0.90 ug/g Wet wt	Not given	Dead or moribund omnivorous raptors collected 1973-77. Not detected in 6/10, detection limit 0.01 ug/g. Wt 450-863 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9507 Heart	11	1.12-4.02 ppm Wet wt	1.96 ppm Wet wt	Collected 1966-79, 36.4% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9508 Liver	12	0.60-5.40 ppm Wet wt	2.75 ppm Wet wt	Collected 1966-79, 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9509 Liver	5	0.34-28.00 ug/g Wet wt	6.31 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1973-77. Mean calculated by extractor. 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
9510 Muscle	13	0.30-8.43 ppm Wet wt	2.44 ppm Wet wt	Collected 1966-79, 38.5% 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, barred
STRIX VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9511 Muscle	5	0.08-7.90 ug/g Wet wt	1.89 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1973-77. Mean calculated by extractor. 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
9512 Adipose	4	0.06-123.47 ppm Wet wt	38.72 ppm Wet wt	Collected 1974-81, 100.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9513 Brain	14	0.004-10.21 ppm Wet wt	2.38 ppm Wet wt	Collected 1974-81, 85.7% 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
9514 Brain	3	Not detected-26.00 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, great horned
BUBO VIRGINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9515 Heart	15	0.04-8.50 ppm Wet wt	1.97 ppm Wet wt	Collected 1974-81, 46.7% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9516 Liver	16	0.04-10.52 ppm Wet wt	2.80 ppm Wet wt	Collected 1974-81, 43.8% 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9517 Liver	3	8.90-53.00 ug/g Wet wt	24.63 ug/g Wet wt	Dead or moribund omnivorous raptors collected 1973-74. Mean calculated by extractor. 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
9518 Muscle	15	0.04-18.49 ppm Wet wt	4.48 ppm Wet wt	Collected 1974-81, 73.3% 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, great horned
BUBO VIRGINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9519 Muscle	2	1.70-2.30 ug/g Wet wt	2.00 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
9520 Brain	4	Not applicable	0.36 ppm Wet wt	Collected 1977-79, 25.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9521 Heart	3	Not applicable	214.97 ppm Wet wt	Collected 1977-79, 33.3% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9522 Liver	3	0.54-55.74 ppm Wet wt	28.14 ppm Wet wt	Collected 1977-79, 66.7% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9523 Muscle	3	Not applicable	1.61 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				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, saw-whet
AEGOLIUS ACADICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9524 Brain	1	Not applicable	3.67 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
9525 Adipose	4	9.82-22.52 ppm Wet wt	14.07 ppm Wet wt	Collected 1967-79, 75.0% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9526 Brain	7	0.06-10.50 ppm Wet wt	2.40 ppm Wet wt	Collected 1967-79, 71.4% 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
9527 Brain	17	Not detected-69.00 ug/g Wet wt	8.21 ug/g Wet wt	Dead or moribund insectivorous raptors collected 1974-78. Not detected in 4/17, detection limit 0.01 ug/g. Mean calculated by extractor. Wt 60-191 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, screech-, Eastern
OTUS ASIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9528 Heart	9	0.40-3.79 ppm Wet wt	1.46 ppm Wet wt	Collected 1967-79, 55.6% contaminated. Raptors had been killed, disabled, or confiscated by law enforcement officers. Illinois GC-EC
9529 Liver	10	0.01-22.27 ppm Wet wt	3.97 ppm Wet wt	Collected 1967-79, 60.0% 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
9530 Liver	4	0.15-45.00 ug/g Wet wt	12.26 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
9531 Muscle	8	0.01-1.59 ppm Wet wt	0.59 ppm Wet wt	Collected 1967-79, 87.5% 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Owl, screech-, Eastern
OTUS ASIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9532 Muscle	4	0.13-20.00 ug/g Wet wt	5.81 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

Pelican, American white
PELECANUS ERYTHRORHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
9533 Brain	a) 1 b) 1 c) 1 d) 1	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 3.5 ppm b) 12.0 ppm c) 11.0 ppm d) 5.8 ppm Wet wt	a) Found dead, 1976 b) 1978 c) 1980 d) 1980 California, Lower Klamath National Wildlife Refuge GLC
9534 Eggs	a) 10 b) 35	a) 1.4-3.6 ppm b) 0.68-6.7 ppm Wet wt	a) 2.34 ppm b) 2.38 ppm Wet wt Geometric	a) Collected 1969 b) Collected 1981 No significant difference (p>0.05) between 1969 and 1981 levels. 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

Pelican, brown
PELECANUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9535 Body	10	a) Not given b) Not given	a) 0.98 ppm b) 7.2 ppm	a) Wet wt, 95% confidence interval 0.61-1.43 b) Lipid wt, 95% confidence interval 5.0-10.2 ppm. Carcass homogenate with 13.8+/-4.5% lipid. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Pelican, brown
PELECANUS OCCIDENTALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9536 Eggs	a) 23 b) 61 c) 33 d) 40	a) 1.00-2.96 ug/g b) 0.74-8.60 ug/g c) 1.02-3.70 ug/g d) 0.36-4.37 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 1.80 ug/g, 1973, 1.86 ug/g, 1974, 1.48 ug/g, 1975, 1.61 ug/g b) Freshly laid, unsuccessful, mean 1971-72 was 3.43 ug/g, 1973, 2.74 ug/g, 1974, 2.87 ug/g, 1975, .1.33 ug/g c) Embryonated, successful, mean 1971-72 was 1.75 ug/g, 1973, 2.11 ug/g, 1974, 1.64 ug/g, 1975, 1.73 ug/g d) Embryonated, unsuccessful, mean 1971-72 was 2.97 ug/g, 1973, 1.97 ug/g, 1974, 2.34 ug/g, 1975, 1.23 ug/g Successful nest if >/=1 downy young survived long enough to leave nest. Critical level of 3 ug/g associated with substantially impaired reproductive success, 4 ug/g with total reproductive failure. 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
9537 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
9538 Muscle	10	a) Not given b) Not given c) Not given d) Not given	a) 0.65 ppm b) 6.0 ppm c) 0.19 ppm d) 5.6 ppm	a) Breast muscle, wet wt, 95% confidence interval 0.42-0.99 ppm b) Lipid wt, 95% confidence interval 4.2-8.7 ppm c) Wing muscle, wet wt, 95% confidence interval 0.10-0.34 ppm d) Lipid wt 95% confidence interval 3.3-9.3. Present in 10/10 in a), b) and in 8/10 in c), d). % lipid in breast was 11.1+/-3.0 and in wing, 3.6+/-1.2. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Penguin, Adelie
PYGOSCELIS ADELIAE

Tissue	Cases Exposure Route	Range	Mean	General Information
9539 Adipose	a) 5 b) 5 c) 5 d) 5	a) 142-375 ng/g b) 157-497 ng/g c) 143-398 ng/g d) 143-588 ng/g Wet wt	a) 220.2 ng/g b) 276.4 ng/g c) 230.6 ng/g d) 291.0 ng/g Wet wt	a) Subcutaneous, males b) Abdominal, males c) Subcutaneous, females d) Abdominal, females. Subcutaneous burdens can be considered total body burdens. On starvation during breeding, levels increased in declining fat reserves with some redistribution to other tissues. Values included DDT (since procedure converted DDT to DDE). Antarctica, Rumpa Island GC-EC

ADIPOSE TISSUE; BONES; BRAIN; LIVER; MUSCLES; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ANTARCTICA; SEX; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; POPULATION EXPOSURE; FOOD CONTAMINATION

Subramanian, A.; Tanabe, S.; Hidaka, H.; Tatsukawa, R. 1986 Environmental Pollution (Series A) 40:173-189

Tissue	Cases Exposure Route	Range	Mean	General Information
9540 Adipose	1	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 398 ng/g b) 585 ng/g c) 534 ng/g f) 725 ng/g g) 148 ug h) 15.6 ug	a) Wet concentration in subcutaneous fat (SCF) of mother b) Wet concentration in abdominal fat (AF) c) Fat concentration in SCF d) Fat concentration in AF e) Burden in SCF f) Burden in AF Collected immediately after laying 1st egg on 11/22/81. Body wt 3850 g, total wt of SCF sample 371 g (fat content 277 g), total wt of AF sample 26.6 g (fat content 21.5 g)/. Total residueal amounts in e) and f) substantially represent whole body burden. Transfer rate from mother to egg was 2% per egg. Values include p,p'-DDT which is converted to p,p'-DDE during alkaline alcohol digestion. Antarctica, Rumpa Island GC-EC

BIRDS; ENVIRONMENTAL EXPOSURE; POLYCHLORINATED BIPHENYLS; DDE; CHLORINE ORGANIC COMPOUNDS; ANTARCTICA; EGGS; ADIPOSE TISSUE; AQUATIC

Tanabe, S.; Subramanian, A.; Hidaka, H.; Tatsukawa, R. 1986 Chemosphere 15(3):343-351

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Penguin, Adelie
PYGOSCELIS ADELIAE

Tissue	Cases Exposure Route	Range	Mean	General Information
9541 Bone	a) 1 b) 1 c) 1	a) Not given b) Not given c) Not given	a) 17.8 ng/g b) 28.6 ng/g c) 38.3 ng/g Wet wt	a) Mating period b) Egg-laying period c) Incubation period Starvation extended through a), b) and c), levels increased in declining fat reserves, and some redistribution to other tissues occurred. Antarctica, Rumpa Island GC-EC
9542 Brain	a) 1 b) 1 c) 1	a) Not given b) Not given c) Not given	a) 1.37 ng/g b) 3.65 ng/g c) 6.52 ng/g Wet wt	a) Mating period b) Egg-laying period c) Incubation period Starvation extended through a), b) and c), levels increased in declining fat reserves, and some redistribution to other tissues occurred. Antarctica, Rumpa Island GC-EC

ADIPOSE TISSUE; BONES; BRAIN; LIVER; MUSCLES; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ANTARCTICA; SEX; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; POPULATION EXPOSURE; FOOD CONTAMINATION

Subramanian, A.; Tanabe, S.; Hidaka, H.; Tatsukawa, R. 1986 Environmental Pollution (Series A) 40:173-189

Tissue	Cases Exposure Route	Range	Mean	General Information
9543 Eggs	1	a) Not applicable b) Not applicable c) Not applicable	a) 98.2 ng/g b) 373 ng/g c) 3.28 ug/g	a) Wet concentration b) Fat concentration c) Whole egg burden (so regarded because white, membrane, and shell contained negligible fat) Yolk sample (wt 33.4 g, fat content 8.8 g) of egg collected immediately after being laid 11/22/81. Whole wt of egg was 142 g. Transfer rate from mother to egg was 2% per egg. Values include p,p'-DDT which is converted to p,p'-DDE during alkaline alcohol digestion. Antarctica, Rumpa Island GC-EC

BIRDS; ENVIRONMENTAL EXPOSURE; POLYCHLORINATED BIPHENYLS; DDE; CHLORINE ORGANIC COMPOUNDS; ANTARCTICA; EGGS; ADIPOSE TISSUE; AQUATIC

Tanabe, S.; Subramanian, A.; Hidaka, H.; Tatsukawa, R. 1986 Chemosphere 15(3):343-351

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Penguin, Adelie
PYGOSCELIS ADELIAE

Tissue	Cases Exposure Route	Range	Mean	General Information
9544 Liver	a) 1 b) 1	a) Not given b) Not given	a) 0.52 ng/g b) 5.56 ng/g Wet wt	a) Mating period b) Egg-laying period c) Incubation period Starvation extended through a), b), levels increased in declining fat reserves, and some redistribution to other tissues occurred. Antarctica, Rumpa Island GC-EC
9545 Muscle	a) 1 b) 1 c) 1	a) Not given b) Not given c) Not given	a) 1.43 ng/g b) 4.23 ng/g c) 9.06 ng/g Wet wt	a) Mating period b) Egg-laying period c) Incubation period Starvation extended through a), b) and c), levels increased in declining fat reserves, and some redistribution to other tissues occurred. Antarctica, Rumpa Island GC-EC

ADIPOSE TISSUE; BONES; BRAIN; LIVER; MUSCLES; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; ANTARCTICA; SEX; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; POPULATION EXPOSURE; FOOD CONTAMINATION

Subramanian, A.; Tanabe, S.; Hidaka, H.; Tatsukawa, R. 1986 Environmental Pollution (Series A) 40:173-189

Perch
PERCA FLUVIATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9546 Body	73	0.0-0.179 mg/kg	0.023 mg/kg	Collected in fall of 1980 and spring of 1981. In 91% of total. Maximum permissible level=2.000 mg/kg. Germany (West), Lahn River GC/MS

BODY; ROACH; PERCH; AQUATIC; GERMANY; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDT; DDE; INDUSTRIAL POLLUTION; AGRICULTURE; PESTICIDE RESIDUES; FISHES; BIOLOGICAL MONITORING; WATER POLLUTION

Schuler, W.; Brunn, H.; Manz, D. 1985 Bulletin of Environmental Contamination and Toxicology 34:608-616

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Perch, white
MORONE AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
9547 Eggs	1	Not applicable	0.04 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
9548 Muscle	1	Not applicable	0.04 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
9549 Body, whole	18	15-18 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Arrowwood National Wildlife Refuge, ND. Length 70-127 mm, avg wt 10 g. Data also given for mixed species. North Dakota 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9550 Eggs	2	0.21-0.36 ug/g	0.29 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)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Perch, yellow
PERCA FLAVESCENS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9551 Muscle	2	0.02-0.05 ug/g	0.035 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
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				

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9552 Brain	1	Not applicable	0.17 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				

Tissue	Cases Exposure Route	Range	Mean	General Information
9553 Eggs	61	a) Not given b) Not given c) Not given d) Not given	a) 0.045+/-0.020 ppm b) 0.063+/-0.009 ppm c) 0.128+/-0.026 ppm d) 0.175+/-0.061 ppm S.E.	a) Wheat fields, 14 eggs, shell thickness 0.263+/-0.005 mm b) Alfalfa fields, 37 eggs, shell thickness 0.266+/-0.03 mm c) Playa basins, 6 eggs, shell thickness 0.239+/-0.010 mm d) Oat fields, 4 eggs, shell thickness 0.243+/-0.002 mm collected 5/80-7/80. Significant negative correlation (r=0.36) between eggshell thickness and residues. Residues ranged from not detected to 0.3 ppm (detection limits not given). Texas, Castro County, Southern High Plains 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				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Pheasant, ring-necked
PHASIANUS COLCHICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9554 Eggs	a) 5 b) 10 c) 2	a) Not detected b) Not detected c) Not detected	a) Not detected b) Not detected c) Not detected	a) 1978 b) 1979 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
9555 Body		a) Not applicable b) Not applicable	a) 0.13 mg/kg b) 0.87 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
9556 Liver	1	Not applicable	128 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Puffin, Atlantic
FRATERCULA ARCTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9557 Eggs	a) 11 b) 10 c) 10 d) 20	a) Not given b) Not given c) Not given d) Not given	a) 0.62+/-0.12 ug/g b) 0.74+/-0.35 ug/g c) 0.51+/-0.16 ug/g d) 0.52+/-0.13 ug/g Wet wt	a) East Finnmark b) West Finnmark c) South Troms/North Nordland d) Lofoten Collected 1983. Levels were well below those at which breeding could be expected to be affected. Norway GC

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Quail, California
CALLIPEPLA CALIFORNICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9558 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Rabbit
ORYCTOLAGUS CUNICULUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9559 Liver	5	0.05-0.11 ppm Wet wt	0.073 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9560 Muscle	5	0.02-0.07 ppm Wet wt	0.037 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Raccoon
PROCYON LOTOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9561 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Rat, brown
RATTUS NORVERGICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9562 Liver	5	0.15-0.17 ppm Wet wt	0.161 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC
9563 Muscle	5	0.05-0.14 ppm Wet wt	0.083 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.05 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 GC-EC

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

Razorbill
ALCA TORDA

Tissue	Cases Exposure Route	Range	Mean	General Information
9564 Eggs	9	Not given	0.83+/-0.25 ug/g Wet wt	Collected in West Finnmark, 1983. Levels were well below those at which breeding could be expected to be affected. Norway GC

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Reindeer
RANGIFER sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9565 Body	2 Ingestion	2.26-3.99 ug	3.12	Total burden in 3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 190 ug. Means calculated by extractor. Lower value in 4-yr old. Sweden, Lake Rogen district

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Reindeer
RANGIFER sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9566 Liver	2 Ingestion	0.08-0.96 ng/g	0.52 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 190 ug. Means calculated by extractor. Sweden, Lake Rogen district
9567 Muscle	2 Ingestion	0.09-0.161 ng/g	0.12 ng/g	3 and 4-yr old female reindeer slaughtered 11/81 and 11/79, respectively. Estimated annual uptake from lichens was 190 ug. Means calculated by extractor. Lower value 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

Roach
RUTILUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9568 Body	227	0.0-0.179 mg/kg	0.023 mg/kg	Collected in fall of 1980 and spring of 1981. In 91% of total. Maximum permissible level=2.000 mg/kg. Germany (West), Lahn River GC/MS

BODY; ROACH; PERCH; AQUATIC; GERMANY; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; DDT; DDE; INDUSTRIAL POLLUTION; AGRICULTURE; PESTICIDE RESIDUES; FISHES; BIOLOGICAL MONITORING; WATER POLLUTION
Schuler, W.; Brunn, H.; Manz, D. 1985 Bulletin of Environmental Contamination and Toxicology 34:608-616

Robin, American
TURDUS MIGRATORIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9569 Brain	1	Not applicable	0.26 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Robin, American
TURDUS MIGRATORIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9570 Carcass	146	0.07-2.77 Wet wt	0.67+/-0.19 ppm S.E. Wet wt Arithmetic	Detected in 13 of 14 composite samples. One composite collected 1977 with 3.33 ppm DDE and 0.57 ppm DDD excluded from tabulation because site had been sprayed (0.84 kg/ha DDT) in 1974. 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

Salmon, Baltic
SALMO SALAR

Tissue	Cases Exposure Route	Range	Mean	General Information
9571 Eggs	a) 15 b) 3 c) 10	a) 34-260 ppb b) 83-109 ppb c) 17-180 ppb Wet wt	a) 145+/-70.1 ppb b) 92.0+/-14.7 ppb c) 75.1+/-50.7 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-EC
9572 Liver	a) 15 b) 3 c) 10	a) 18-278 ppb b) 10-27 ppb c) 12-47 ppb Wet wt	a) 51.5+/-64.2 ppb b) 18.3+/-8.50 ppb c) 27.5+/-13.0 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-EC

(next page)

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Salmon, Baltic
SALMO SALAR

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9573 Muscle	a) 14 b) 3 c) 10	a) 83-373 ng/g b) 55-164 ng/g c) 40-192 ng/g Wet wt	a) 202+/-85.7 ng/g b) 109+/-54.5 ng/g c) 76.8+/-44.8 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				

Sandpiper, western
CALIDRIS MAURI

Tissue	Cases Exposure Route	Range	Mean	General Information
9574 Body		a) Not given b) Not given	a) 1.0 ppm b) 0.87 ppm Dry wt Geometric means	a) San Luis Obispo County b) Humboldt Bay Collected 1980. Pooled samples. California, San Luis Obispo County
BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27				

Scorpion, sea
MYOXOCEPHALUS SCORPIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9575 Liver	a) 5 b) 6	a) 110-270 ug/kg b) 32-115 ug/kg Wet wt	a) 168+/-97 ug/kg b) 75+/-29 ug/kg Wet wt	a) 1977 b) 1982 Year collected from Sogndalsfjord. Limit of detection 2 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				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Seal, Arctic ringed
PHOCA HISPIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
9576 Adipose	a) 9 b) 15 c) 12 d) 16	a) Not given b) Not given c) Not given d) Not given	a) 0.28+/-0.095 ug/g b) 0.14+/-0.10 ug/g c) 0.63+/-0.33 ug/g d) 0.39+/-0.32 ug/g Wet wt	a) Females, 1972 b) Females, 1981 c) Males, 1972 d) Males, 1981 Samplings 5-6/72 and 3 and 5/81. Blubber. Significant differences: a), b) $p<0.01$ and c), d) $p<0.01$. Canada, Holman Island, NWT GLC

ENVIRONMENTAL EXPOSURE; AQUATIC; ADIPOSE TISSUE; SEALS; POLYCHLORINATED BIPHENYLS; DDT; PESTICIDES; WATER POLLUTION; CANADA
Addison, R.F.; Zinck, M.E.; Smith, T.G. 1986 Environmental Science and Technology 20:253-256

Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9577 Adipose	a) 10 b) 9	a) 6.2-17.2 ug/g b) 1.7-7.7 ug/g Lipid wt	a) 11.27 ug/g b) 4.5 ug/g Lipid wt	a) 1-22 yr old males b) 6-31 yr old females Blubber lipid. Mean for both sexes was 8.1+/-4.7 ug/g Collected 11/72, during breeding season. Separate means calculated by extractor. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Shad
DOROSOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9578 Body, whole	25	a) Not given b) Not applicable c) Not given d) Not given e) Not given f) Not given	a) 0.126 ppm b) Not detected c) 0.122 ppm d) 0.238 ppm e) 0.128 ppm f) 0.014 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 0.05 ppm. Mean 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
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
9579 Body, whole	4	Not given	9 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

Shag
PHALACROCORAX ARISTOTELIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9580 Eggs	a) 10 b) 10	a) Not given b) Not given	a) 0.40+/-0.14 ug/g b) 0.23+/-0.08 ug/g Wet wt	a) East Finnmark b) Lofoten Collected 1983. Levels were well below those at which breeding could be expected to be affected. Norway GC

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C
Shearwater, Cory's
CALONECTRIS DIOMEDEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9581 Adipose	a) 5 b) 5 c) 5	a) Not given b) Not given c) Not given	a) 80.24+/-35.58 ug/g b) 24.56+/-9.10 ug/g c) 34.91+/-18.36 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 GC-EC
9582 Eggs	a) 20 b) 10 d) 11 d) 2	a) Not given b) Not given c) Not given d) 4.79-9.99 ug/g Dry wt	a) 1.49+/-0.68 ug/g b) 18.77+/-12.46 ug/g c) 3.75+/-2.08 ug/g d) 7.39 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 GC-EC
9583 Kidney	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.29+/-0.16 ug/g b) 3.87+/-2.19 ug/g c) 1.08+/-0.53 ug/g d) 1.16+/-0.43 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
9584 Liver	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.35+/-0.22 ug/g b) 4.74+/-2.11 ug/g c) 1.84+/-1.50 ug/g d) 2.65+/-0.92 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
9585 Uropygial gland	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 1.53+/-0.91 ug/g b) 17.57+/-3.97 ug/g c) 7.64+/-2.55 ug/g d) 6.88+/-2.66 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9586 Adipose	a) 5 b) 5 Ingestion	a) Not given b) Not given	a) 0.30 ug/g b) 2.41 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 0.24+/-0.08-0.55+/-0.38 ug/g for a) and 1.29+/-0.45-1.90+/-0.87 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

Shiner, common
NOTROPIS CORNUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9587 Body, whole	35	Not given	9 ng/g Wet wt	Collected Jun-Aug 1980, 1981, or 1982 at Alamosa National Wildlife Refuge, CO. Length 44-65 mm, avg wt 1.6 g. Data also given for mixed species. Colorado 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

Shiner, red
NOTROPIS LUTRENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9588 Body, whole	48	130-140 ng/g Wet wt	Not given	Collected Jun-Aug 1980, 1981, or 1982 at Alamosa National Wildlife Refuge, CO. Length 44-71 mm, avg wt 2.2 g. Data also given for mixed species. Colorado 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Shoveler
ANAS CLYPEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9589 Adipose	1	Not detected	Not detected	Collected 10/14/81. Juvenile, 0.47 kg, shot by hunter. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
9590 Liver	1	Not detected	Not detected	Collected 10/14/81. Juvenile, 0.47 kg, shot by hunter. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
9591 Muscle	1	Not detected	Not detected	Breast. Collected 10/14/81. Juvenile, 0.47 kg, shot by hunter. Detection limit 0.01 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

Shrew
SUNCUS MURINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9592 Body		Not given	<=0.30 ppm Wet wt	Trapped in 1981. Level Lower than those known to adversely affect birds or small animals. Guam

ENVIRONMENTAL EXPOSURE; BODY; LIZARDS; PESTICIDE RESIDUES; GUAM; MAMMALS; DDE; TERRESTRIAL; PESTICIDES
Grue, C.E. 1985 Nature 316(6026):301

Skimmer, black
RYNCHOPS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
9593 Body	a) 15 b) 15	a) 1-12 ppm b) 0.8-10 ppm Wet wt	a) 2.5 ppm b) 2.0 ppm Geometric means	a) Collected near Port Mansfield, TX, on 1/13/83 from a flock of 300 b) At Chachalacas, Veracruz on 1/2-4/83, flock of 50 Birds appeared in excellent physical condition. 1 of 5 food samples from GI tracts in b) contained 0.55 ppm, wet wt. Texas; Mexico

BODY; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; MEXICO; TEXAS; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; BIOACCUMULATION; CHLORINATED HYDROCARBONS; DDE
White, D.H.; Mitchell, C.A.; Stafford, C.J. 1985 Bulletin of Environmental Contamination and Toxicology 34:513-517

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Skimmer, black
RYNCHOPS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
9594 Carcass	a) 10 b) 10 c) 10	a) 1.1-30 ppm b) 0.9-9.5 ppm c) 0.5-92 ppm Wet wt	a) 6.54 ppm b) 2.32 ppm c) 5.22 ppm 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
9595 Eggs	a) 20 b) 20 c) 20	a) 0.5-86 ppm b) 0.2-17 ppm c) 0.2-13 ppm Wet wt	a) 3.25 ppm b) 1.62 ppm c) 2.25 ppm Wet wt Geometric mean	a) 1980 b) 1981 c) 1982 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

Skink
CARLIA FUSCA

Tissue	Cases Exposure Route	Range	Mean	General Information
9596 Body		Not given	0.04 ppm Wet wt	Collected 1981. Level lower than those known to adversely affect birds or small animals. Guam

ENVIRONMENTAL EXPOSURE; BODY; LIZARDS; PESTICIDE RESIDUES; GUAM; MAMMALS; DDE; TERRESTRIAL; PESTICIDES
Grue, C.E. 1985 Nature 316(6026):301

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Snake, water
NATRIX sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9597 Body, whole	25	a) Not applicable b) Not applicable c) Not applicable	a) 0.020 ppm 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. 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

Sole, lemon
MICROSTOMAS KITT

Tissue	Cases Exposure Route	Range	Mean	General Information
9598 Liver	a) 6 b) 10 c) 5	a) 10-160 ug/kg b) 6-97 ug/kg c) 10-100 ug/kg Wet wt	a) 77+/-68 ug/kg b) 32+/-33 ug/kg c) 34+/-39 ug/kg Wet wt	a) 1977, Sogndalsfjord b) 1982, Sogndalsfjord c) 1977, Dalsfjord Year and location of collection. 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

Sparrow, house
PASSER DOMESTICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9599 Carcass	a) 30 b) 69 c) 10 d) 10	a) Not detected-35 ppm b) Not detected-10 ppm c) Not detected d) Not detected Wet wt	a) 1.4 ppm b) 1.0 ppm c) Not detected d) Not detected Geometric Wet wt	a) From sites in Rio Grande River systems b) From sites in Pecos River systems c) Controls, Ft. Sumner, 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9600 Adipose	a) 13 b) 25 c) 25 d) 25 e) 49 f) 50 g) 28 h) 21 i) 24	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) 717+/-565 ppb b) 607+/-399 ppb c) 971+/-540 ppb d) 1087+/-733 ppb e) 1488+/-1755 ppb f) 517+/-381 ppb g) 712+/-667 ppb h) 1008+/-498 ppb i) 523+/-322 ppb Fat basis	a) 1972 b) 1973 c) 1974 d) 1975 e) 1978 f) 1979 g) 1981 h) 1982 i) 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
9601 Body		a) Not given b) Not given	a) 3.8 ppm b) 4.0 ppm Dry wt Geometric means	a) Sonoma County b) Monterey County Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Tissue	Cases Exposure Route	Range	Mean	General Information
9602 Eggs	19	Not detected-1.90 ug/g Wet wt	0.39 ug/g Geometric Wet wt	Collected from nests, 1978, Umatilla National Wildlife Refuge. Detection limit 0.1 ug/g. 17 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9603 Muscle	a) 13 b) 25 c) 25 d) 25 e) 49 f) 50 g) 28 h) 21 i) 24	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) 20.9+/-15.7 ppb b) 15.7+/-11.1 ppb c) 23.4+/-13.3 ppb d) 19.2+/-11.6 ppb e) 31.2+/-23.0 ppb f) 21.9+/-16.1 ppb g) 27.4+/-29.8 ppb h) 19.0+/-10.3 ppb i) 11.2+/-5.7 ppb Wet wt	a) 1972 b) 1973 c) 1974 d) 1975 e) 1978 f) 1979 g) 1981 h) 1982 i) 1983 Dates 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

Stilt, black-necked
HIMANTOPUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9604 Carcass	24	2.58-4.70 ppm Wet wt	3.64+/-1.06 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9605 Body		Not applicable	0.08 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
9606 Body		Not applicable	0.11 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9607 Body, whole	a) 8 b) 16	a) 80-140 ng/g b) 9-21 ng/g Wet wt	a) Not given b) Not given	a) Alamosa National Wildlife Refuge, CO b) Arapaho National Wildlife Refuge, CO Collected Jun-Aug 1980, 1981, or 1982. Length 56-188 mm, avg wt 15 g. Data also given for mixed species. Colorado 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Swallow, barn
HIRUNDO RUSTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9608 Body		Not given	6.6 ppm Dry wt Geometric mean	Collected 1982-83. Pooled samples. Texas (western), Presidio County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Tissue	Cases Exposure Route	Range	Mean	General Information
9609 Carcass	21	3.97-4.03 ppm Wet wt	4.00+/-0.03 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
9610 Carcass	133	1.25-5.66 ppm Wet wt	3.18+/-0.28 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in all 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Swallow, northern rough-winged
STELGIDOPTERYX SERRIPENNIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9611 Carcass	7	Not applicable	10.35 ppm Wet wt	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 1 composite sample that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. 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 5:675-698

Swallow, rough-winged
STELGIDOPTERYX RUFICOLLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9612 Body		Not given	1.7 ppm Dry wt Geometric mean	Collected 1982-83. Pooled samples. Texas (western), Presidio County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9613 Body	a) 5 b) 6 c) 3	a) Not given b) Not given c) Not given	a) 4.4 ppm b) 7.9 ppm c) 0.36 ppm Wet wt	a) Live nesting females collected 6-7/1981, maximum level 18 ppm wet wt, lipids 12.9+/-0.7% b) Dead females collected 6-7/1980-81, max level 44 ppm wet wt, lipids 8.3+/-1.9% c) Dead nestlings collected 6-7/1980-81, max level 0.83 ppm, lipids 5.1+/-2.1%. Colorado, Boulder Co. and Gilpin Co., Rocky Mountains GLC; EC
9614 Brain	a) 5 b) 3	a) Not given b) Not given	a) 0.76 ppm b) 1.3 ppm Wet wt	a) Live nesting birds collected 6-7/1981, positive in 3/5, maximum level 1 ppm wet wt b) Dead birds collected 6-7/1980-81, positive in 3/3, max level 2 ppm wet wt. 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9615 Carcass	a) 23 b) 14	a) 0.07-58.63 ppm b) 9.23-11.10 ppm Wet wt	a) 14.32+/-3.37 ppm b) 10.17+/-0.93 ppm S.E. Wet wt Arithmetic	a) Detected in 23/23 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9616 Eggs	a) 5 b) 5	a) Not given b) Not given	a) 1.3 ppm b) 2.5 ppm Wet wt	a) Collected from attended nests 6-7/1981, maximum level 6 ppm wet wt, lipids 2.9+/-0.2% b) Collected from unattended nests 6-7/1980-81, max level 7 ppm wet wt, lipids 5.2+/-0.4%. 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
9617 Body		a) Not given b) Not given c) Not given	a) 3.7 ppm b) 3.8 ppm c) 4.2 ppm Dry wt Geometric means	a) Yosemite b) Monterey County c) San Luis Obispo County Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES

Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
9618 Carcass	a) 10 b) 48	a) 1.46-6.19 ppm b) 0.18-7.61 ppm Wet wt	a) 3.87+/-0.63 ppm b) 4.13 ppm S.E. Wet wt Arithmetic	Detected in 10/10 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

Swift, white-throated
AERONAUTES SAXATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9619 Carcass	37	0.17-3.16 ppm Wet wt	1.88+/-0.62 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falc[illegible], sh[illegible] '80-7/80. Detected in 4 composite samples that excluded be[illegible], tar[illegible], G[illegible] tract, and feathers. Detection limit was 0.05 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 5:675-693

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
9620 Adipose	1	Not detected	Not detected	Collected 10/14/81. Juvenile, 0.37 kg, shot by hunter. Detection limit 0.01 ug/g with, 0.001 ug/g without PCB interference. New York, Hudson River GC-EC
9621 Muscle	1	Not detected	Not detected	Breast. Collected 10/14/81. Juvenile, 0.37 kg, shot by hunter. Detection limit 0.01 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Tern, Caspian
STERNA CASPIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9622 Brain	1	Not applicable	1.3 ug/g Wet wt	From group found dead or dying, Umatilla National Wildlife Refuge, 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				

Tern, common
STERNA HIRUNDO

Tissue	Cases Exposure Route	Range	Mean	General Information
9623 Blood	5	a) 0.8-1.6 ppm b) 0.02-0.02 ppm	a) 1.1 ppm b) 0.02 ppm	a) Lipid basis b) Fresh wt From pre-fledglings collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
9624 Eggs	10	0.8-6.8 ppm Fresh wt	2.5 ppm Fresh wt	Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
9625 Muscle		a) 1.7-5.2 ppm b) 0.2-0.4 ppm c) 5.1-7.7 ppm d) 0.4-0.7 ppm	a) 3.6 ppm b) 0.3 ppm c) 6.3 ppm d) 0.5 ppm	a) Pre-fledge, lipid basis, 5 cases b) Samples in a, fresh wt c) Post-fledge, lipid basis, 7 cases d) Samples in c), fresh wt Collected in 1977 nesting season. Detection limit 0.01 ppm. Lake Superior, Duluth-Superior Harbor GC
ENVIRONMENTAL EXPOSURE; AQUATIC; BIRDS; TERNS; GULLS; BLOOD; EGGS; MUSCLES; CHLORINE ORGANIC COMPOUNDS; POLYCHLORINATED BIPHENYLS; DDE; DDT; HEXACHLOROBENZENE; LAKE SUPERIOR; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION; BIOACCUMULATION; AGE Niemi, G.J.; Davis, T.E.; Veith, G.D.; Vieux, B. 1986 Archives of Environmental Contamination and Toxicology 15:313-320				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Tern, Forster's
STERNA FORSTERI

Tissue	Cases Exposure Route	Range	Mean	General Information
9626 Eggs	1	Not applicable	1.90 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				

Trout, Bothnian Bay
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9627 Eggs	11	97-317 ppb WEt wt	170+/-62.7 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
9628 Liver	11	37-96 ppb Wet wt	64.4+/-15.8 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, Baltic Sea GC-EC
9629 Muscle	11	41-241 ppb Wet wt	145+/-59.7 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				

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
9630 Fillets	3	0.594-0.640 ppm	0.628+/-0.0151 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
9631 Body	10	Not given	510+/-180 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

Turtle, loggerhead
CARETTA CARETTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9632 Eggs	55	3.4-5 ug/egg	Not applicable	10-60 d artificial incubation to confirm previously reported decrease in level. Initial decrease between day 0 and 10. 7 time points, 8 eggs each except 7 at 50 days. Estimated from graph. Analytical sensitivity=0.005 ppm. Florida, Merritt Island GLC

EGGS; ENVIRONMENTAL EXPOSURE; TURTLES; AQUATIC; FLORIDA; DDE; ANIMAL POPULATIONS; BIOACCUMULATION; WATER POLLUTION
Clark, D.R.; Krynitsky, A.J. 1985 Bulletin of Environmental Contamination and Toxicology 34:121-125

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
9633 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) 0.39+/-0.31 ppm b) 0.10+/-0.16 ppm c) 0.16+/-0.29 ppm d) 0.26+/-0.44 ppm e) 2.03+/-1.24 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 63%. 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, Bengal
GYPS BENGALENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9634 Adipose	3	20.297-53.948 ppm Wet wt	35.070 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9635 Blood, plasma	3	0.106-0.245 ppm Wet wt	0.183 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC
9636 Brain	3	0.298-1.052 ppm Wet wt	0.587 ppm Geometric Wet wt	Part of monitoring study of wild birds, and farm-bred chickens. Wild birds trapped 2-3/80. Values, for whole tissue, not corrected for recovery. India, Lucknow GLC

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; PESTICIDES; PESTICIDE RESIDUES; HEXACHLOROBENZENE; LINDANE; DDE; TDE; DDT; HEXACHLOROCYCLOHEXANE; BLOOD PLASMA; BRAIN; ADIPOSE TISSUE; MUSCLES; LIVER; HEART; LUNGS; KIDNEYS; SPLEEN; INDIA

Kaphalia, B.S.; Husain, M.M.; Seth, T.D.; Kumar, A.; Murti, C.R.K. 1981 Pesticides Monitoring Journal 15(1):9-13

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Vulture, black
CORAGYPS ATRATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9637 Adipose	1	Not applicable	3.00 ug/g Wet wt	Collected 3/28/72. Florida, Alachua County GC-EC
9638 Muscle	1	Not applicable	0.13 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

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
9639 Body		a) Not applicable b) Not applicable c) Not applicable	a) 0.08 mg/kg b) 0.22 mg/kg c) 0.05 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

Water boatman (Corixidae)
CORIXIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9640 Body		Not given	10.588 ug/g Wet wt	Huntsville Spring Branch, mile 3. Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 Cl); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 Cl)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Whale, beluga
DELPHINAPTERUS LEUCAS

Tissue	Cases Exposure Route	Range	Mean	General Information
9641 Adipose	2	66.23+/-5.96-89.25+/-8.03 ug/g Wet wt	Not given	Blubber from beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
9642 Kidney	3	0.44+/-0.04-2.68+/-0.24 ug/g Wet wt	Not given	From beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
9643 Liver	3	0.30+/-0.03-2.41+/-0.22 ug/g Wet wt	Not given	From beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
9644 Lung	2	0.38+/-0.03-0.78+/-0.07 ug/g Wet wt	Not given	From beached, dead males, part of group of 4 animals drifting ashore between 11/83 and 12/84. Means of replicate analyses. Canada, Saint Lawrence Estuary GC/MS
9645 Milk	1	Not applicable	1.88+/-0.17 ug/g Wet wt	From beached, dead female, part of group of 4 animals drifting ashore between 11/83 and 12/84. Mean of replicate analyses. Canada, Saint Lawrence Estuary GC/MS

ENVIRONMENTAL EXPOSURE; AQUATIC; WHALES; MAMMALS; CANADA; POLYCHLORINATED BIPHENYLS; DDE; DDT; ADIPOSE TISSUE; LIVER; LUNGS; KIDNEYS; MILK; PESTICIDES; INDUSTRIAL CHEMICALS; WATER POLLUTION; CHLORINE ORGANIC COMPOUNDS

Masse, R.; Martineau, D.; Tremblay, L.; Beland, P. 1986 Archives of Environmental Contamination and Toxicology 15:567-579

Willet
CATOPTROPHORUS SEMIPALMATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9646 Carcass	7	Not applicable	0.06 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

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Woodcock
PHILOHELA MINOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9647 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

Woodpecker, acorn
MELANERPES FORMICIVORUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9648 Body		a) Not given b) Not given c) Not given	a) 0.019 ppm b) 0.032 ppm c) 0.0032 ppm Dry wt Geometric means	a) San Luis Obispo County b) Yosemite c) Mendocino County Collected 1980. Pooled samples. California, San Luis Obispo County

BODY; EGGS; TERRESTRIAL; BIRDS; ENVIRONMENTAL EXPOSURE; CALIFORNIA; TEXAS; CHLORINATED HYDROCARBONS; CHLORINE ORGANIC COMPOUNDS; DDE; DDT; INSECTICIDES; PESTICIDES; BIOACCUMULATION; METABOLITES; PESTICIDE RESIDUES
Hunt, W.G.; Johnson, B.S.; Thelander, C.G.; Walton, B.J.; Risebrough, C.W.; Jarman, W.M.; Springer, A.M.; Monk, J.G.; Walker, W. 1986 Environmental Toxicology and Chemistry 5:21-27

Worms, Tubificidae

Tissue	Cases Exposure Route	Range	Mean	General Information
9649 Body		a) Not given b) Not given	a) 0.485 ug/g b) 124.242 ug/g Wet wt	a) Huntsville Spring Branch, mile 6 b) Mile 4 Collection transects below site of DDT residue discharges between 1947 and 1970 by Olin Chemical Co. Total estimated discharge 4.32X10(E+5) to 8.0X10(E+6) kg. Other data on water, sediment and composite samples included. Alabama GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DDT; DDD; DDE; BODY; ALABAMA; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOACCUMULATION; INSECTS; WORMS;PESTICIDES
Reich, A.R.; Perkins, J.L.; Cutter, G. 1986 Environmental Toxicology and Chemistry 5:725 736

Ethylene, 1,1-dichloro-2,2-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(dichloroethenylidene)bis(4-chloro- (9 CI)
72-55-9
C14-H8-Cl4
MW 318.02, MP 88.4 C

Wrasse, ballan
LABRUS BERGGYLTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9650 Liver	a) 10 b) 10	a) 8-120 ug/kg b) 6-42 ug/kg Wet wt	a) 51+/-31 ug/kg b) 15+/-12 ug/kg Wet wt	a) 1977 b) 1982 Year of collection in Sogndalsfjord. Limit of detection 2 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

Yellowfish
BARBUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9651 Adipose	a) 1 b) 1	a) Not applicable b) Not applicable	a) 9.18 mg/kg b) 13.60 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

Ethylene, 2-chloro-1,1-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(chloroethenylidene)bis(4-chloro- (9 CI)
1022-22-6
C14-H9-Cl3

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9652 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

Ethylene, 2-chloro-1,1-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(chloroethenylidene)bis(4-chloro- (9 CI)
1022-22-6
C14-H9-Cl3
Fish, black scabbard
APHANOPUS CARBO

Tissue	Cases Exposure Route	Range	Mean	General Information
9653 Liver	1	<0.1-1.0 mg/kg Lipid basis	Not given	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
9654 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
9655 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				

Ethylene, 2-chloro-1,1-bis(p-chlorophenyl)- (8 CI); Benzene, 1,1'-(chloroethenylidene)bis(4-chloro- (9 CI)
1022-22-6
C14-H9-Cl3
Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9656 Liver	1	Not applicable	22 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				

Fluoranthene
206-44-0
C16-H10
MW 202.26, MP 111 C, BP about 375 C
Burbot
LOTA LOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9657 Gall bladder		Not given	29 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
9658 Liver		Not given	45 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
9659 Muscle		Not given	5 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				

Fluoranthene
206-44-0
C16-H10
MW 202.26, MP 111 C, BP about 375 C

Clam
TRIDACNA MAXIMA

Tissue	Cases Exposure Route	Range	Mean	General Information
9660 Body		a) <0.05-0.2 ug/g b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable g) <0.04-0.7 ug/g h) Not applicable i) Not applicable j) <0.06-<0.06 ug/g	a) Not given b) 0.05 ug/g c) <0.05 ug/g d) <0.05 ug/g e) <0.04 ug/g f) <0.04 ug/g g) Not given h) <0.06 ug/g i) <0.04 ug/g j) <0.06 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				

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9661 Muscle		Not detected-27 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
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9662 Body	a) 29 b) 28	a) Not given b) Not given	a) 7 ppb b) 7 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				

Fluoranthene
206-44-0
C16-H10
MW 202.26, MP 111 C, BP about 375 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9663 Body		a) Not detected b) Not detected-43 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
9664 Body		Not given	80 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9665 Body		a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) 1.3-2.8 ug/g Dry wt	a) 1.0 ug/g b) 0 ug/g c) 0 ug/g d) 1.7 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

Fluoranthene
206-44-0
C16-H10
MW 202.26, MP 111 C, BP about 375 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9666 Body		a) Not detectable-94.1+/-58.7 ug/kg b) 0.9+/-1.6-4.07+/-20 ug/kg c) 4.3+/-7.4-16.1+/-17.9 ug/kg d) 4.7+/-2.0-16.1+/-17.9 ug/kg e) Not detectable-6.3+/-10.9 ug/kg f) Not detectable-6.0+/-2.4 ug/g	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 3.0 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
9667 Gall bladder		Not given	95 ug/kg Wet wt	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
9668 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
9669 Muscle		4-4 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

Fluorene (8 CI); 9H-Fluorene (9 CI)
86-73-7
C13-H10
MW 166.23, MP 116-117 C, BP 293-295 C, VP 10 mm Hg at 146 C

Bass, rock
AMBLOPLITES RUPESTRIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9670 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
9671 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
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9672 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/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

Fluorene (8 CI); 9H-Fluorene (9 CI)
86-73-7
C13-H10
MW 166.23, MP 116-117 C, BP 293-295 C, VP 10 mm Hg at 146 C

Bullhead, brown
ICTALURUS NEBULOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9673 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
9674 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

Fluorene (8 CI); 9H-Fluorene (9 CI)
86-73-7
C13-H10
MW 166.23, MP 116-117 C, BP 293-295 C, VP 10 mm Hg at 146 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9675 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) <0.02 mg/kg c) <0.02 mg/kg d) <0.10 mg/kg e) <0.10 mg/kg f) <0.02 mg/kg g) <0.02 mg/kg h) <0.12 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
9676 Body		Not applicable	<0.20 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				

Fluorene (8 CI); 9H-Fluorene (9 CI)
86-73-7
C13-H10
MW 166.23, MP 116-117 C, BP 293-295 C, VP 10 mm Hg at 146 C

Mussel
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9677 Body	a) 29 b) 28	a) Not given b) Not given	a) 2 ppb b) 2 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

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9678 Body		Not given	21 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
9679 Body		a) Not applicable b) Not applicable	a) <0.02 mg/ml b) <0.02 mg/ml	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

Fluorene (8 CI); 9H-Fluorene (9 CI)
86-73-7
C13-H10
MW 166.23, MP 116-117 C, BP 293-295 C, VP 10 mm Hg at 146 C

Sucker, redhorse
MOXOSTOMA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9680 Body		Not applicable	<0.20 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
9681 Body		Not applicable	<1.10 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
9682 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

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (A. aenea)
AMARA AENEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9683 Body	9	Not applicable	<=10 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (A. haemorrhoidalis)
ATHOS HAEMORRHOIDALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9684 Body	5	Not applicable	41 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (A. parallelepipedus)
ABAX PARALLELEPIPEDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9685 Body	8	<=10-12 ug/g	<=10 ug/g	"Control" area, 50 km from Al reduction plant. Sampling 6 to 10/83. 5 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (C. agilis)
CHOLEVA AGILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9686 Body	45	Not applicable	45 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (C. caraboides)
CYCHRUS CARABOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
9687 Body	a) 2 b) 1	a) 20-59 ug/g b) Not applicable	a) 34 ug/g b) 16 ug/g	a) Median exposure, 2 values in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (C. nigra)
CANTHARIS NIGRA

Tissue	Cases Exposure Route	Range	Mean	General Information
9688 Body	17	Not applicable	47 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (C. nigricans)
CATOPS NIGRICANS

Tissue	Cases Exposure Route	Range	Mean	General Information
9689 Body	34	Not applicable	35 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (C. problematicus)
CARABUS PROBLEMATICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9690 Body	10	Not given	<=10 ug/g	"Control" area, 50 km from Al reduction plant. Sampling 6 to 10/83. 3 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (C. septempunctata)
COCCINELLA SEPTEMPUNCTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9691 Body	21	39-55 ug/g	45 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 3 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (N. brevicollis)
NEBRIA BREVICOLLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9692 Body	125	14-85 ug/g	32 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 6 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (P. decorus)
PHILONTHUS DECORUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9693 Body	a) 217 b) 21	a) 16-29 ug/g b) 19-41 ug/g	a) 22 ug/g b) 28 ug/g	a) Median exposure, 8 values in mean b) Controls, 2 values in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (P. fuscipennis)
PHILONTHUS FUSCIPENNIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9694 Body	7	Not applicable	31 ug/g	"Control" area, 50 km from Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (P. laminatus)
PHILONTHUS LAMINATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9695 Body	10	Not applicable	35 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Beetle (P. madidus)
PTEROSTICHUS MADIDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9696 Body	a) 47 b) 72 c) 10	a) 34-84 ug/g b) 15-72 ug/g c) 12-53 ug/g	a) 56 ug/g b) 33 ug/g c) 29 ug/g	a) High exposure, 7 values in mean b) Medium exposure, 10 values in mean c) Controls, 3 values in mean Collection sites near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Beetle (P. melanarius)
PTEROSTICHUS MELANARIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9697 Body	a) 7 b) 2	a) 24-47 ug/g b) <=10-35 ug/g	a) 33 ug/g b) 19 ug/g	a) High exposure, 3 values in mean b) Medium exposure, 2 values in mean Collection sites near Al reduction plant, 6 to 10/83. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (P. niger)
PTEROSTICHUS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
9698 Body	11	12-30 ug/g	18 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 3 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (P. nigrita)
PTEROSTICHUS NIGRITA

Tissue	Cases Exposure Route	Range	Mean	General Information
9699 Body	5	Not applicable	33 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (P. viridiaeris)
PHYLLOBIUS VIRIDIAERIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9700 Body	184	28-51 ug/g	35 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 3 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (R. fulva)
RHAGONYCHA FULVA

Tissue	Cases Exposure Route	Range	Mean	General Information
9701 Body	11	Not applicable	53 ug/g	Site of high medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (R. lignosa)
RHAGONYCHA LIGNOSA

Tissue	Cases Exposure Route	Range	Mean	General Information
9702 Body	24	Not applicable	260 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (S. brunnea)
SERICA BRUNNEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9703 Body	4	Not applicable	41 ug/g	Site of high medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Beetle (S. marshami)
SEPEDOPHILUS MARSHAMI

Tissue	Cases Exposure Route	Range	Mean	General Information
9704 Body	73	Not applicable	80 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (S. tristis)
SILPHA TRISTIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9705 Body	a) 4 b) 6	a) 23-60 ug/g b) 19-39 ug/g	a) 36 ug/g b) 28 ug/g	a) High exposure, 4 values in mean b) Medium exposure, 5 values in mean Collection sites near Al reduction plant, 6 to 10/83. 2 of 30 larvae averaged 380 ug/g (360-400 ug/g). Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Beetle (T. signatus)
TACHINUS SIGNATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9706 Body	a) 30 b) 44	a) Not applicable b) Not applicable	a) 230 ug/g b) 23 ug/g	a) High exposure, 1 value in mean b) Medium exposure, 1 value in mean Collection sites near Al reduction plant, 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Centipede (H. subterraneus)
HAPLOPHILUS SUBTERRANEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9707 Body	7	Not applicable	17 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Centipede (L. duboscqui)
LITHOBIUS DUBOSCQUI

Tissue	Cases Exposure Route	Range	Mean	General Information
9708 Body	221	40-87 ug/g	60 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 2 values in mean. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Earthworm (A. chlorotica)
ALLOLOBOPHORA CHLOROTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9709 Body	30	320-4100 ug/g	1145 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 2 values in mean. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Fluoride
16984-48-8
F
AtW 18.9984

Earthworm (A. longa)
ALLOLOBOPHORA LONGA

Tissue	Cases Exposure Route	Range	Mean	General Information
9710 Body	a) 21 b) 8 c) 6	a) 88-180 ug/g b) 38-230 ug/g c) 26-91 ug/g	a) 120 ug/g b) 88 ug/g c) 49 ug/g	a) High exposure, 5 values in mean b) Medium exposure, 3 values in mean c) Controls, 2 values in mean Collection sites near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Earthworm (A. rosea)
ALLOLOBOPHORA ROSEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9711 Body	a) 84 b) 6	a) 20-200 ug/g b) Not applicable	a) 92 ug/g b) <=10 ug/g	a) High exposure, 4 values in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Earthworm (L. castaneus)
LUMBRICUS CASTANEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9712 Body	a) 27 b) 13 c) 4	a) 130-340 ug/g b) 91-260 ug/g c) Not given	a) 210 ug/g b) 153 ug/g c) <=10 ug/g	a) High exposure, 2 values in mean b) Medium exposure, 2 values in mean c) Controls, 2 values in mean Collection sites near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Earthworm, red
LUMBRICUS RUBELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9713 Body	a) 1 b) 1	a) Not applicable b) Not applicable	a) 500 ug/g b) 17 ug/g	a) High exposure b) Medium exposure Collection sites near Al reduction plant, 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Earwig
FORFICULA AURICULARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
9714 Body	a) 22 b) 7	a) 32-55 ug/g b) Not applicable	a) 46 ug/g b) 18 ug/g	a) Median exposure, 3 values in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fish, parrot
SPARISOMA (EUSCARUS) CRETENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
9715 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

Fluoride
16984-48-8
F
AtW 18.9984

Gastropod (D. rotundus)
DISCUS ROTUNDATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9716 Body	a) 27 b) 29	a) 130-900 ug/g b) 22-38 ug/g	a) 309 ug/g b) 31 ug/g	a) High exposure, 4 values in mean b) Controls, 4 values in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 *Environmental Pollution (Series A)* 41:199-217

Gastropod (O. alliarius)
OXYCHILUS ALLIARIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9717 Body	a) 32 b) 2 c) 46	a) 110-370 ug/g b) Not applicable c) 35-73 ug/g	a) 229 ug/g b) 32 ug/g c) 46 ug/g	a) High exposure, 4 values in mean b) Medium exposure, 1 value in mean c) Controls, 3 values in mean Collection sites near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Grasshopper
CHORTHIPPUS PARALLELUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9718 Body	a) 5 b) 2	a) <=10-39 ug/g b) Not applicable	a) 20 ug/g b) <=10 ug/g	a) High exposure, 2 values in mean b) Medium exposure, 1 value in mean Collection sites near Al reduction plant, 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Harvestmen (N. bimaculatum)
NEMASTOMA BIMACULATUM

Tissue	Cases Exposure Route	Range	Mean	General Information
9719 Body	124	140-430 ug/g	245 ug/g	Site of high medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 2 values in mean. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Harvestmen (O. agrestis)
OLIGOLOPHUS AGRESTIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9720 Body	a) 13 b) 30	a) Not applicable b) <=10 ug/g	a) 290 ug/g b) Not given	a) High and median exposures, 1 value in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Harvestmen (O. tridens)
OLIGOLOPHUS TRIDENS

Tissue	Cases Exposure Route	Range	Mean	General Information
9721 Body	a) 19 b) 54	a) Not applicable b) Not given	a) 270 ug/g b) 164 ug/g	a) High exposure, 1 value in mean b) Medium exposure, 2 values in mean Collection sites near Al reduction plant, 6 to 10/83. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Fluoride
16984-48-8
F
AtW 18.9984

Harvestmen (P. opilio)
PHALANGIUM OPILIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9722 Body	12	<=10 ug/g	Not given	"Control" area, 50 km from Al reduction plant. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Harvestmen (P. triangularis)
PLATYBUNUS TRIANGULARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9723 Body	a) 17 b) 12	a) Not applicable b) <=10 ug/g	a) 240 ug/g b) Not given	a) High exposure, 1 value in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Honeybee
APIS MELLIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
9724 Body		4-182 ppm	Not given	Measurements at Whidbey Island and Commencement Bay. Washington, Puget Sound AAS

BODY; BEES; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; WASHINGTON; ARSENIC; FLUORIDE; CADMIUM; AIR POLLUTION; BIOLOGICAL MONITORING; DUST; LAND POLLUTION; PARTICULATES; RURAL AREAS; URBAN AREAS
Bromenshenk, J.J.; Carlson, S.R.; Simpson, J.C.; Thomas, J.M. 1985 Science 227:632-634

Fluoride
16984-48-8
F
AtW 18.9984

Millipede (C. punctatus)
CYLINDROIULUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9725 Body	a) 23 b) 8	a) 1100-2700 ug/g b) Not applicable	a) 1723 ug/g b) 160 ug/g	a) Median exposure, 2 values in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Millipede (G. marginata)
GLOMERIS MARGINATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9726 Body	5	Not applicable	73 ug/g	"Control" area, 50 km from Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Millipede (I. scandinavius)
IULUS SCANDINAVIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9727 Body	8	65-92 ug/g	77 ug/g	"Control" area, 50 km from Al reduction plant. 2 values in mean. Wales, Anglesey, Holyhead ISE
ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS Buse, A. 1986 Environmental Pollution (Series A) 41:199-217				

Fluoride
16984-48-8
F
AtW 18.9984

Millipede (O. pilosus)
OPHYIULUS PILOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9728 Body	13	Not applicable	150 ug/g	"Control" area, 50 km from Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Millipede (P. angustus)
POLYDESMUS ANGUSTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9729 Body	a) 28 b) 6	a) 100-2500 ug/g b) Not applicable	a) 842 ug/g b) 130 ug/g	a) Median exposure, 5 values in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Millipede (P. gallicus)
POLYDESMUS GALLICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9730 Body	6	28-51 ug/g	2200 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Millipede (T. niger)
TACHYPODOIULUS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
9731 Body	a) 25 b) 43	a) 600-1300 ug/g b) 61-100 ug/g	a) 872 ug/g b) 78 ug/g	a) Median exposure, 5 values in mean b) Controls, 3 values in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Slug (A. ater)
ARION ATER

Tissue	Cases Exposure Route	Range	Mean	General Information
9732 Body	a) 1 b) 7	a) Not applicable b) 31-71 ug/g	a) 280 ug/g b) 47 ug/g	a) High exposure b) Medium exposure, 3 values in mean Collection sites near Al reduction plant, 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Slug (A. circumscriptus)
ARION CIRCUMSCRIPTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9733 Body	a) 17 b) 15	a) 46-300 ug/g b) 24-110 ug/g	a) 138 ug/g b) 51 ug/g	a) High exposure, 3 values in mean b) Medium exposure, 2 value in mean Collection sites near Al reduction plant, 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Slug (A. hortensis)
ARION HORTENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9734 Body	13	59-300 ug/g	133 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 2 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS

Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Slug (A. intermedius)
ARION INTERMEDIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9735 Body	a) 12 b) 8	a) Not applicable b) Not applicable	a) 120 ug/g b) 40 ug/g	a) High exposure, 1 value in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS

Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Slug (A. subfuscus)
ARION SUBFUSCUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9736 Body	a) 16 b) 4	a) 19-180 ug/g b) Not applicable	a) 82 ug/g b) 34 ug/g	a) Median exposure, 4 values in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS

Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Slug (A. sylvaticus)
ARION SILVATICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9737 Body	4	Not applicable	140 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Slug (D. carunanae)
DEROCERAS CARUANAE

Tissue	Cases Exposure Route	Range	Mean	General Information
9738 Body	18	34-68 ug/g	48 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 2 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Slug, field gray
DEROCERAS RETICULATUM

Tissue	Cases Exposure Route	Range	Mean	General Information
9739 Body	a) 9 b) 3	a) Not applicable b) Not applicable	a) 98 ug/g b) 17 ug/g	a) High exposure, 1 value in mean b) Controls, 1 value in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Spider (A. cornutus)
ARANEUS CORNUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9740 Body	10	Not applicable	75 ug/g	Site of medium exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Spider (A. pulverulentra)
ALOPECOSA PULVERULENTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
9741 Body	40	330-400 ug/g	363 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 2 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Spider (D. cupreus)
DRASSODES CUPREUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9742 Body	2	Not applicable	<=10 ug/g	"Control" area, 50 km from Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Spider (E. ovata)
ENOPLOGNATHA OVATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9743 Body	28	Not applicable	310 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 1 value in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Spider (M. segmentata)
META SEGMENTATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9744 Body	a) 51 b) 25 c) 11	a) 450-820 ug/g b) Not applicable c) Not applicable	a) 598 ug/g b) 230 ug/g c) 18 ug/g	a) High exposure, 3 values in mean b) Medium exposure, 1 value in mean c) Controls, 1 value in mean Collection sites near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Spider (P. pullata)
PARDOSA PULLATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9745 Body	a) 154 b) 18 c) 108	a) 184-500 ug/g b) Not applicable c) 12-27 ug/g	a) 346 ug/g b) 160 ug/g c) 17 ug/g	a) High exposure, 7 values in mean b) Medium exposure, 1 value in mean c) Controls, 3 values in mean Collection sites near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984

Spider (X. cristatus)
XYSTICUS CRISTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9746 Body	32	380-420 ug/g	400 ug/g	Site of high exposure. Near Al reduction plant. Sampling 6 to 10/83. 2 values in mean. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Woodlice (O. asellus)
ONISCUS ASELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9747 Body	a) 89 b) 35	a) 300-1600 ug/g b) 76-200 ug/g	a) 632 ug/g b) 112 ug/g	a) Median exposure, 6 values in mean b) Controls, 3 values in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Woodlice (P. muscorum)
PHILOSCIA MUSCORUM

Tissue	Cases Exposure Route	Range	Mean	General Information
9748 Body	a) 72 b) 39	a) 750-900 ug/g b) 75-78 ug/g	a) 808 ug/g b) 77 ug/g	a) Median exposure, 3 values in mean b) Controls, 2 values in mean Collection site near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Fluoride
16984-48-8
F
AtW 18.9984
Woodlice (P. scaber)
PORCELLIO SCABER

Tissue	Cases Exposure Route	Range	Mean	General Information
9749 Body	a) 5 b) 11 c) 13	a) Not applicable b) Not applicable c) 60-160 ug/g	a) 1100 ug/g b) 550 ug/g c) 98 ug/g	a) High exposure, 1 value in mean b) Medium exposure, 1 value in mean c) Controls, 2 values in mean Collection sites near Al reduction plant, controls 50 km distant. Sampling 6 to 10/83. Wales, Anglesey, Holyhead ISE

ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BODY; FLUORIDE; EARTHWORMS; INSECTS; GASTROPODS; WALES; UNITED KINGDOM; INDUSTRIAL AREAS; INDUSTRIAL PLANTS; INDUSTRIAL POLLUTION; CRUSTACEANS; SPIDERS
Buse, A. 1986 Environmental Pollution (Series A) 41:199-217

Furan, dihydromethyl-
95461-55-5
C5-H8-O
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9750 Body		Not given	3.5 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

Fyrquel GT
55818-86-5
EXACT COMPOSITION UNKNOWN OR UNDETERMINED
Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
9751 Body, whole	148	a) <0.2-1 ug/g b) 1-8 ug/g c) 54-274 ug/g d) 17-<1.0 ug/g e) 14-75 ug/g f) 512-769 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 5 ug/L Fyrquel c) As in a) except exposed to 11 ug/L, 30 & 90 d d) Unexposed control, component measured was t-butyl phenyl diphenyl phosphate, 60 & 90 d e) As in d) except exposed to 17 ug/L, 30 and 90 d f) As in d) except exposed to 385 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

Glycine, N-(2-methylbenzoyl)-
42013-20-7
C10-H11-N-O3
MW 193.21
Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
9752 Body		0.00-2.63 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=61.0 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

Heptadecane
629-78-7
C17-H36
MW 240.48, MP 22 C, BP 301.8 C, VP 1 mm Hg at 115 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
9753 Adipose	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 95.4+/-35.9 dpm/mg b) 349.6+/-42.9 dpm/mg c) 533.1+/-91.9 dpm/mg d) 766.6+/-164.2 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in perigastric adipose tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9754 Blood	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 182.6+/-55.8 dpm/mg b) 350.6+/-95.0 dpm/mg c) 270.8+/-28.1 dpm/mg d) 115.6+/-9.1 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9755 Body	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 292.8+/-111.0 dpm/mg b) 480.3+/-80.5 dpm/mg c) 328+/-60.2 dpm/mg d) 213.6+/-37.5 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in carcass remaining after measurement in muscle, liver, perigastric adipose tissues, skin, kidney, spleen, blood, and gall bladder. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9756 Gall bladder	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 243.2+/-80.7 dpm/mg b) 282.0+/-111.9 dpm/mg c) 335.6+/-166.4 dpm/mg d) 32.3+/-4.6 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9757 Kidney	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 241.7+/-94.1 dpm/mg b) 514.6+/-67.8 dpm/mg c) 496.7+/-48.2 dpm/mg d) 333.2+/-38.3 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting

(next page)

Heptadecane
629-78-7
C17-H36
MW 240.48, MP 22 C, BP 301.8 C, VP 1 mm Hg at 115 C

Trout, rainbow
SALMO GAIRDNERI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9758 Liver	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 432.6+/-132.9 dpm/mg b) 647.8+/-58.9 dpm/mg c) 1087.7+/-33.8 dpm/mg d) 438.0+/-147.9 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9759 Muscle	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 47.3+/-12.6 dpm/mg b) 88.6+/-22.6 dpm/mg c) 116.9+/-31.1 dpm/mg d) 63.3+/-10.5 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9760 Skin	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 69.6+/-26.4 dpm/mg b) 165.8+/-20.2 dpm/mg c) 192+/-45.0 dpm/mg d) 186.5+/-31.8 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9761 Spleen	a) 3 b) 3 c) 3 d) 3 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 252.6+/-165.0 dpm/mg b) 165.2+/-45.5 dpm/mg c) 204.8+/-55.5 dpm/mg d) 138.2 dpm/mg	a) 6 hr after single 20-uCi dose of [14-C]-labelled compound (specific activity 27 mCi/mM) b) 12 hr after dose c) 24 hr after dose d) 1 wk after dose Measured distribution of [14-C] in tissues. Total radioactivity recovered in fish was 68% of dose at 6 hr, 90.0% at 12 hr, 69.6% at 24 hr, and 49.5% at 1 wk. Scintillation counting
9762 Urine	Ingestion	a) Not given b) Not given c) Not given d) Not given	9100 dpm	Excretion of 14-C on d 3 following single 20 uCi dose of [14-C]-labelled compound (specific activity, 27 mCi/mM). Approximately 400 dpm/mL. No trace of radioactivity in urine during first 48 hr. Scintillation counting

FISHES; HYDROCARBONS; AQUATIC; DELIBERATE EXPOSURE; MUSCLES; LIVER; KIDNEYS; SKIN; BLOOD; GALL BLADDER; BODY; URINE; ADIPOSE TISSUE; SPLEEN
Cravedi, J.-P.; Tulliez, J. 1986 Environmental Research 39:180-187

Heptadiene, methyl-
57782-15-7
C8-H14
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9763 Body		Not given	2.8 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
9764 Body		Not given	27 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				

Heptane, dimethyl-
30498-66-9
C9-H20
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9765 Body		a) Not given b) Not given	a) 11 ppb b) 8.0 ppb Wet wt	a) Chef Menteur Pass b) The Rigolets Navigable channels 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				

Heptane, trimethyl-
79004-86-7
C10-H22
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9766 Body		Not given	3.2 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

Hexachlorocyclohexane, total (No postings in CHEMLINE).
Blackbird, Brewer's
EUPHAGUS CYANOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9767 Carcass	79	Not detected-0.06 ppm Wet wt	0.01+/-0.01 ppm S.E. Wet wt Arithmetic	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
9768 Carcass	44	Not detected-0.07 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

Hexachlorocyclohexane, total (No postings in CHEMLINE).

Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
9769 Adipose	1	595-682 ng/g Lipid wt	639 ng/g Lipid wt	Mean of levels from 3 different areas, front, center and rear. 16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9770 Blood	1	Not applicable	696 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9771 Brain	1	a) Not applicable b) Not applicable c) Not applicable	a) 245 ng/g b) 246 ng/g c) 237 ng/g Lipid wt	a) Cerebrum b) Cerebellum c) Medulla oblongata 16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9772 Heart	1	Not applicable	926 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9773 Intestine	1	Not applicable	711 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9774 Kidney	1	Not applicable	716 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9775 Liver	1	Not applicable	1245 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9776 Lung	1	Not applicable	1089 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC

(next page)

Hexachlorocyclohexane, total (No postings in CHEMLINE).

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9777 Muscle	1	437-771 ng/g Lipid wt	650 ng/g Lipid wt	Mean of levels from 6 different areas, front, center and rear. 16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC
9778 Stomach	1	Not applicable	3534 ng/g Lipid wt	16.5 yr old animal 160.5 kg, 238 cm in length collected 12/19/78. Data also presented on fresh wt basis and as total burden. Data on isomers included. Japan, Taiji (Pacific Coast) GC-EC

ENVIRONMENTAL EXPOSURE; AQUATIC; DOLPHINS; JAPAN; PACIFIC OCEAN; ADIPOSE TISSUE; MUSCLES; KIDNEYS; LIVER; INTESTINES; LUNGS; HEART; STOMACH; BLOOD; BRAIN; CEREBRUM; CEREBELLUM; MEDULLA; POLYCHLORINATED BIPHENYLS; DDT; HEXACHLOROCYCLOHEXANE; HEXACHLOROBENZENE; PESTICIDES; PESTICIDE RESIDUES; WATER POLLUTION

Tanabe, S.; Tatsukawa, R.; Tanaka, H.; Maruyama, K.; Miyazaki, N.; Fujiyama, T. 1981 Agricultural and Biological Chemistry 45(11):2569-2578

Godwit, marbled
LIMOSA FEDOA

Tissue	Cases Exposure Route	Range	Mean	General Information
9779 Carcass	11	Not applicable	0.24 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

Hare
LEPUS EROPAUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9780 Adipose	26	Not given	0.190 mg/kg	Sedentary populations from agricultural biotype with no industry present. Use of alpha-/beta-mixtures prohibited since 1977. Detectable levels in 3 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

Hexachlorocyclohexane, total (No postings in CHEMLINE).

Killdeer
CHARADRIUS VOCIFERUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9781 Carcass	a) 19 b) 66	a) Not detected-0.38 ppm b) 0.05-0.06 ppm Wet wt	a) 0.02+/-0.02 ppm b) 0.02+/-0.01 ppm S.E. Wet wt Arithmetic	a) Detected in 1/19 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

Stilt, black-necked
HIMANTOPUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9782 Carcass		Not detected-0.22 ppm Wet wt	0.11+/-0.11 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

Swallow, cliff
HIRUNDO PYRRHONOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9783 Carcass	133	0.05-0.18 ppm Wet wt	0.03+/-0.01 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 6/14 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

Hexachlorocyclohexane, total (No postings in CHEMLINE).

Swallow, northern rough-winged
STELGIDOPTERYX SERRIPENNIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9784 Carcass	7	Not applicable	0.13 ppm Wet wt	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 1 composite sample that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 ppm wet wt. 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

Swallow, tree
TACHYCINETA BICOLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9785 Carcass	a) 23 b) 14	a) 0.05-0.29 ppm b) 0.13-0.23 ppm Wet wt	a) 0.12+/-0.02 ppm b) 0.18+/-0.05 ppm S.E. Wet wt Arithmetic	a) Detected in 20/23 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

Swallow, violet-green
TACHYCINETA THALASSINA

Tissue	Cases Exposure Route	Range	Mean	General Information
9786 Carcass	a) 10 b) 48	a) 0.07-0.28 ppm b) 0.06-0.17 ppm Wet wt	a) 0.06+/-0.03 ppm b) 0.09+/-0.03 ppm S.E. Wet wt Arithmetic	Detected in 4/10 individuals b) 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 0.05 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

Hexachlorocyclohexane, total (No postings in CHEMLINE).

Swift, white-throated
AERONAUTES SAXATALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9787 Carcass		0.05-0.25 ppm Wet wt	0.05+/-0.02 ppm S.E. Wet wt Arithmetic	Migratory insectivores, prey of peregrine falcon, shot 5/80-7/80. Detected in 3 of 4 composite samples that excluded beak, tarsi, GI tract, and feathers. Detection limit was 0.05 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 5:675-693

Woodcock
SCOLOPAX RUSTICOLA

Tissue	Cases Exposure Route	Range	Mean	General Information
9788 Adipose	8	Not given	0.109 mg/kg	Use of alpha-/beta-mixtures prohibited since 1977. Detectable levels in 4 of 8. 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

Hexadienal

73506-81-7
C6-H8-O
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9789 Body		Not given	7.5 ppb Wet wt	Chef Menteur Pass, navigable channels 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

Hexadienal
73506-81-7
C6-H8-O
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9790 Body		Not given	35 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

Hexane, ethylmethyl-
79004-87-8
C9-H20
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9791 Body		Not given	0.7 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
9792 Body		Not given	2.5 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

Hexene, tetramethyl-
88495-02-7
C10-H20
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9793 Body		Not given	4.2 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. 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

Hexene, trimethyl-
95461-54-4
C9-H18
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9794 Body		Not given	0.2 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. 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

Indeno(1,2,3-cd)pyrene
193-39-5
C22-H12
MW 276.34, MP 162.4-164 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
9795 Body		a) Not detectable b) Not detectable-1.7+/-2.9 ug/kg	a) Not given b) Not given	a) Outdoor Resorts Marina b) Summer Pooled, 15 adults/sample collected weekly form mid-intertidal areas of reefs. 3/29-4/14/83 and 7/26-8/11/83. For each group n=3. Ranges of means. Detection limit 1.3 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

Indole (8 CI); 1H-Indole (9 CI)
120-72-9
C8-H7-N
MW 117.14, MP 52 C, BP 253 C at 762 mm Hg

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9796 Adipose	2 Gavage	a) Not given b) Not given	a) 0.12 b) 0.04 Fraction of dose/kgX10(E-3)	a) 72 hr after acute dose of 6100 uCi (75.23 mg) b) Day 34 after 30-d chronic dose of 626 uCi/d (7.72 mg/g) [14-C]-labelled, specific activity 9.5 mCi/m mole. Scintillation counting
9797 Liver	2 Gavage	a) Not given b) Not given	a) 2.56 b) 0.76 Fraction of dose/kgX10(E-3)	a) 72 hr after acute dose of 6100 uCi (75.23 mg) b) Day 34 after 30-d chronic dose of 626 uCi/d (7.72 mg/g) [14-C]-labelled, specific activity 9.5 mCi/m mole. Scintillation counting
9798 Milk, whole	2 Gavage	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 2.7 b) 1.2 c) 0.6 d) 7.9 e) 11.0 f) 4.0 S.E. Fraction of dose/kgX10(E+3)	a) 24 hr after acute dose of 6100 uCi (75.23 mg) b) 48 hr c) 72 hr d) During 30-d chronic dose of 626 uCi/d (7.72 mg/d), day 4 e) Day 17 f) Day 33 [14-C]-labelled, specific activity 9.5 mCi/m mole. Estimated from graph. Scintillation counting

(next page)

Indole (8 CI); 1H-Indole (9 CI)
120-72-9
C8-H7-N
MW 117.14, MP 52 C, BP 253 C at 762 mm Hg

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9799 Muscle	2 Gavage	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 0.20 b) 0.35 c) 0.20 d) 0.19 Fraction of dose/kgX10(E-3)	a) 72 hr after acute dose of 6100 uCi (75.23 mg), loin b) Flank c) Day 34 after 30-d chronic dose of 626 uCi/d (7.72 mg/g), loin d) Flank [14-C]-labelled, specific activity 9.5 mCi/m mole. Scintillation counting
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; SWINE; CHICKENS; EGGS; LIVER; MILK; ADIPOSE TISSUE; INDOLE; INGESTION Eisele, G.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:246-252				

Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9800 Adipose	a) 4 b) 4 c) 4 Gavage	a) Not given b) Not given c) Not given	a) 1.80+/-0.55 b) 0.51+/-0.08 c) 0.33+/-0.04 S.E. Fraction of dose/kg(X10(E-3))	a) 24 hr after acute dose of 100 uCi (1.23 mg) b) 72 hr c) Day 31 after chronic dose of 38 uCi/d (0.47 mg/g) [14-C]-labelled, specific activity 9.5 mCi/m mole. Scintillation counting
9801 Eggs	a) 4 b) 4 c) 4 d) 4 e) 4 f) 4 Gavage	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 2.5 b) 5.0 c) 4.9 d) 1.5 e) 9.0 f) 3.0 Fraction of dose/whole egg (a)-c)) or kg (d)-f)) (X10(E+3))	a) 24 hr after acute dose of 100 uCi (1.23 mg) b) 48 hr c) 72 hr d) Day 5 after chronic dose of 38 uCi/d (0.47 mg/g) e) Day 16 f) Day 30 [14-C]-labelled, specific activity 9.5 mCi/m mole. Estimated from graph. Scintillation counting
9802 Liver	a) 4 b) 4 c) 4 Gavage	a) Not given b) Not given c) Not given	a) 10.55+/-0.98 b) 3.14+/-0.32 c) 2.13+/-0.26 S.E. Fraction of dose/kgX10(E-3)	a) 24 hr after acute dose of 100 uCi (1.23 mg) b) 72 hr c) Day 31 after chronic dose of 38 uCi/d (0.47 mg/g) [14-C]-labelled, specific activity 9.5 mCi/m mole. Scintillation counting

(next page)

Indole (8 CI); 1H-Indole (9 CI)
120-72-9
C8-H7-N
MW 117.14, MP 52 C, BP 253 C at 762 mm Hg

Chicken
GALLUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9803 Muscle	Gavage	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 2.89+/-0.13 b) 1.82+/-0.07 c) 2.35+/-0.25 d) 1.03+/-0.07 e) 0.88+/-0.12 f) 0.78+/-0.13 S.E. Fraction of dose/kgX10(E-3)	a) 24 hr after acute dose of 100 uCi (1.23 mg), dark meat b) White meat c) 72 hr, dark meat d) White meat e) Day 31 after chronic dose of 38 uCi/d (0.47 mg/g), dark meat f) White meat [14-C]-labelled, specific activity 9.5 mCi/m mole. 4 animals/time point. Scintillation counting
9804 Yolk	a) 4 b) 4 c) 4 Gavage	a) Not given b) Not given c) Not given	a) 16.14+/-2.55 b) 7.58+/-1.02 c) 1.98+/-0.11 S.E. Fraction of dose/kg(X10(E-3))	a) 24 hr after acute dose of 100 uCi (1.23 mg) b) 72 hr c) Day 31 after chronic dose of 38 uCi/d (0.47 mg/g) [14-C]-labelled, specific activity 9.5 mCi/m mole. Internal yolk. Scintillation counting
DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; SWINE; CHICKENS; EGGS; LIVER; MILK; ADIPOSE TISSUE; INDOLE; INGESTION Eisele, G.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:246-252				

Swine

Tissue	Cases Exposure Route	Range	Mean	General Information
9805 Adipose	a) 3 b) 3 c) 3 Gavage	a) Not given b) Not given c) Not given	a) 0.76+/-0.12 b) 0.30+/-0.07 c) 0.42+/-0.08 S.E. Fraction of dose/kgX10(E-3)	a) 24 hr after acute dose of 400 uCi (4.93 mg) b) 72 hr c) Day 31 after chronic dose of 76 uCi/d (0.94 mg/d) [14-C]-labelled, specific activity 9.5 mCi/m mole. Scintillation counting
9806 Liver	a) 3 b) 3 c) 3 Gavage	a) Not given b) Not given c) Not given	a) 4.86+/-0.60 b) 2.66+/-0.53 c) 3.99+/-0.41 S.E. Fraction of dose/kgX10(E-3)	a) 24 hr after acute dose of 400 uCi (4.93 mg) b) 72 hr c) Day 31 after chronic dose of 76 uCi/d (0.94 mg/d) [14-C]-labelled, specific activity 9.5 mCi/m mole. Scintillation counting

(next page)

Indole (8 Cl); 1H-Indole (9 Cl)
120-72-9
C8-H7-N
MW 117.14, MP 52 C, BP 253 C at 762 mm Hg

Swine

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9807 Muscle	Gavage	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.76+/-0.04 b) 0.65+/-0.07 c) 0.68+/-0.08 d) 0.61+/-0.14 e) 1.72+/-0.32 f) 1.79+/-0.37 S.E. Fraction of dose/kgX10(E-3)	a) 24 hr after acute dose of 400 uCi (4.93 mg), loin b) Ham c) 72 hr, loin d) Ham e) Day 31 after chronic dose of 76 uCi/d (0.94 mg/d), loin f) Ham [14-C]-labelled, specific activity 9.5 mCi/m mole. 3 animals/time point. Scintillation counting

DELIBERATE EXPOSURE; TERRESTRIAL; CATTLE; SWINE; CHICKENS; EGGS; LIVER; MILK; ADIPOSE TISSUE; INDOLE; INGESTION

Eisele, G.R. 1986 Bulletin of Environmental Contamination and Toxicology 37:246-252

Iodine
7553-56-2
I
AtW 126.9045, MP 113.60 C, BP 185.24 C, VP (solid) 0.03 mm Hg at 0 C, 0.305 mm Hg at 25 C, 2.154 mm Hg at 50 C, 26.78 mm Hg at 90 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
9808 Body		30-80 ug/g Dry wt	57.9 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

Iodine
7553-56-2
I
AtW 126.9045, MP 113.60 C, BP 185.24 C, VP (solid) 0.03 mm Hg at 0 C, 0.305 mm Hg at 25 C, 2.154 mm Hg at 50 C, 26.78 mm Hg at 90 C

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
9809 Body		25-80 ug/g Dry wt	58.2 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

Sunfish, spotted
LEPOMIS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9810 Muscle	2	0.945-0.994 mg/kg Wet wt	0.970 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

Iodine, isotope of mass 125
14158-31-7
I
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9811 Thyroid gland	115	4-59 mBq/g Fresh wt	17 mBq/g Fresh wt	Farm animals slaughtered between 1978-84. Detectable levels in 69 cases. Not detected in feed. Tap water contained 1.1 mBq/L (mean, 5 determinations). England, Surrey, Weybridge

THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE
Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31

Iodine, isotope of mass 125
14158-31-7
I
Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9812 Thyroid gland	8	11-18 mBq/g Fresh wt	14 mBq/g Fresh wt	Farm animals slaughtered between 1978-84. Detectable levels in 3 cases. Not detected in feed. Tap water contained 1.1 mBq/L (mean, 5 determinations). United Kingdom, Surrey, Weybridge
THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31				

Horse
EQUUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9813 Thyroid gland	3	7-29 mBq/g Fresh wt	21 mBq/g Fresh wt	Farm animals slaughtered between 1978-84. Detectable levels in all cases. Not detected in feed. Tap water contained 1.1 mBq/L (mean, 5 determinations). United Kingdom, Surrey, Weybridge
THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31				

Rabbit
LEPUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9814 Thyroid gland	8	39-40 mBq/g Fresh wt	39 mBq/g Fresh wt	Farm animals slaughtered between 1978-84. Detectable levels in 2 cases. Not detected in feed. Tap water contained 1.1 mBq/L (mean, 5 determinations). United Kingdom, Surrey, Weybridge
THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31				

Iodine, isotope of mass 125
14158-31-7
I

Sheep
OVIS *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
9815 Thyroid gland	414	4-80 mBq/g Fresh wt	26 mBq/g Fresh wt	Farm animals slaughtered between 1978-84. Detectable levels in 252 cases. Not detected in feed. Tap water contained 1.1 mBq/L (mean, 5 determinations). United Kingdom, Surrey, Weybridge

THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE
Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31

Swan, mute
CYGNUS OLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9816 Thyroid gland	128	Not detected-8000 mBq/g Fresh wt	Not given	Thames River from Lechlade to Canada docks in London (240 km). 101 (79%) with detectable levels. Highest found in swans downstream from Oxford. Blanket weed, a food source from sewage outlets along river, contained about 10-2000 mBq/g dry wt 4 of 24 additional swans from tributaries flowing into the Thames had detectable levels (<51-33,137 mBq/g fresh wt), as did 9 of 33 (8-692 mBq/g) from the Thames basin, and 1 of 38 (46 mBq/g) from various counties in southern England. Values estimated from figures. England, Thames Valley

THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE
Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31

Swine
SUS *sp.*

Tissue	Cases Exposure Route	Range	Mean	General Information
9817 Thyroid gland	37	11-41 mBq/g Fresh wt	17 mBq/g Fresh wt	Farm animals slaughtered between 1978-84. Detectable levels in 10 cases. Not detected in feed. Tap water contained 1.1 mBq/L (mean, 5 determinations). United Kingdom, Surrey, Weybridge

THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE
Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31

Iodine, isotope of mass 131
10043-66-0
I
Swan, mute
CYGNUS OLOR

Tissue	Cases Exposure Route	Range	Mean	General Information
9818 Thyroid gland	126	Not detected-1700 mBq/g Fresh wt	Not given	Thames River from Lechlade to Canada docks in London (240 km). Detectable levels in 6. Found in 18 of 22 samples of blanket weed, a food source from sewage outlets along river. Not detected in any of 62 additional swans from tributaries flowing into the Thames or from various counties in southern England. United Kingdom, Thames Valley

THYROID GLANDS; ENVIRONMENTAL EXPOSURE; UNITED KINGDOM; IODINE; BIOACCUMULATION; DRINKING WATER; RADIOISOTOPES; WATER POLLUTION; AQUATIC; TERRESTRIAL; CATTLE; GOATS; HORSES; RABBITS; SHEEP; SWANS; SWINE
Howe, J.R.; Lloyd, M.K. 1986 Science of the Total Environment 48:13-31

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1737 C, 10 mm Hg at 2040 C
Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
9819 Muscle	3	0.005-0.010 mg/kg Wet wt	0.007 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

Bluefish
POMATOMUS SALTATRIX

Tissue	Cases Exposure Route	Range	Mean	General Information
9820 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9821 Muscle	2	0.006-0.006 mg/kg Wet wt	0.006 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

Cat

Tissue	Cases Exposure Route	Range	Mean	General Information
9822 Hair	a) 25 b) 11 c) 10	a) 10-375 ug/g b) 20-72 ug/g c) 10-32 ug/g	a) 68 ug/g b) 43 ug/g c) 16 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

Catfish
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9823 Muscle	2	0.004-0.005 mg/kg Wet wt	0.005 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C
Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9824 Blood, serum	607	<1->30 ppm	4.6+/-6.1 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
9825 Bone	a) 40 b) 19 Ingestion	a) Not given b) Not given	a) 10 ug/g b) 8 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
9826 Brain	a) 58 b) 26 Ingestion	a) Not given b) Not given	a) 72 ug/g b) 58 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				

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9827 Brain	a) 40 b) 18 Ingestion	a) Not given b) Not given	a) 95 ug/g b) 98 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
9828 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) 21.0 ug/g b) 20.1 ug/g c) 17.6 ug/g d) 16.7 ug/g e) 25.1 ug/g f) 24.8 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9829 Diaphragm	a) 5 b) 10 c) 6 d) 9 e) 15 f) 40 Ingestion	a) Not given b) Not given c) 75-98 ug/g d) 88-98 ug/g e) Not given f) Not given Dry wt	a) 80 ug/g b) 81 ug/g c) Not given d) Not given e) 78 ug/g f) 73 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
9830 Diaphragm	a) 40 b) 20 Ingestion	a) Not given b) Not given	a) 97 ug/g b) 109 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
9831 Heart	a) 5 b) 10 c) 4 d) 6 e) 15 f) 40 Ingestion	a) Not given b) Not given c) 138-237 ug/g d) 157-208 ug/g e) Not given f) Not given Dry wt	a) 85 ug/g b) 167 ug/g c) Not given d) Not given e) 177 ug/g f) 191 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9832 Heart	a) 40 b) 19 Ingestion	a) Not given b) Not given	a) 196 ug/g b) 193 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
9833 Kidney	90	29->200 ppm	86.6+/-54.9 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
9834 Kidney	a) 5 b) 10 c) 4 d) 6 e) 15 f) 40 g) 5 h) 10 i) 5 j) 10 Ingestion	a) Not given b) Not given c) 234-424 ug/g d) 194-312 ug/g e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given Dry wt	a) 110 ug/g b) 147 ug/g c) Not given d) Not given e) 250 ug/g f) 272 ug/g g) 239 ug/g h) 240 ug/g i) 199 ug/g j) 185 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9835 Kidney	a) 40 b) 20 Ingestion	a) Not given b) Not given	a) 270 ug/g b) 2661 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
9836 Kidney	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 225 ug/g b) 320 ug/g c) 281 ug/g d) 343 ug/g e) 255 ug/g f) 290 ug/g g) 247 ug/g Dry wt	a) Controls, range cattle b) Control cows for c-d), fed no sludge c) Cows fed 9 mo with 12% Ft Collins sludge in diet d) As in c) plus 4-mo withdrawal e) Control steers for f-g) f) Steers, same as c) g) As in f) 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9837 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) 58.4 ug/g b) 59.0 ug/g c) 53.2 ug/g d) 53.0 ug/g e) 60.1 ug/g f) 61.5 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
9838 Liver	229	20-440 ppm	149+/-188 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9839 Liver	a) 5 b) 10 c) 6 d) 9 e) 15 f) 40 g) 5 h) 10 i) 5 j) 10 k) 5 l) 10 Ingestion	a) Not given b) Not given c) 104-239 ug/g d) 121-246 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) 470 ug/g b) 510 ug/g c) Not given d) Not given e) 131 ug/g f) 170 ug/g g) 132 ug/g h) 174 ug/g i) 127 ug/g j) 129 ug/g k) 120 ug/g l) 128 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
9840 Liver	a) 40 b) 40 Ingestion	a) Not given b) Not given	a) 169 ug/g b) 148 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9841 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) 63.5 ug/g b) 63.0 ug/g c) 60.4 ug/g d) 62.4 ug/g e) 60.3 ug/g f) 69.6 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
9842 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) 23.9 ug/g b) 20.7 ug/g c) 21.3 ug/g d) 24.1 ug/g e) 25.8 ug/g f) 28.0 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
9843 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) 372 ug/g b) 660 ug/g c) 351 ug/g d) 678 ug/g e) 371 ug/g f) 506 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9844 Kidney	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 100+/-10 ppm b) 160+/-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
9845 Liver	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 127+/-16 ppm b) 200+/-32 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

Clam, fingernail
SPHAERIIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9846 Body, whole		Not given	10 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
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9847 Muscle	2	0.007-0.008 mg/kg Wet wt	0.008 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Dog

Tissue	Cases Exposure Route	Range	Mean	General Information
9848 Hair	a) 24 b) 5	a) 5-224 ug/g b) 5-10 ug/g	a) 46 ug/g b) 8 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				

Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
9849 Adipose	a) 1 b) 1 c) 1	a) 8.52-23.4 ug/g b) 2.09-3.66 ug/g c) 2.11-4.00 ug/g Wet wt	a) 13.7+/-6.71 ug/g b) 3.15+/-0.72 ug/g c) 3.34+/-0.84 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 37.2+/-5.15, 26.7+/-3.41, 28.1+/-5.41, repectively. Japan, Taiji, Kii Peninsula AAS
9850 Adrenal gland	3	a) Not applicable b) Not applicable c) Not applicable	a) 89.8 ug/g b) 114 ug/g c) 118 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
9851 Amniotic fluid	1	Not applicable	1.21 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS

(next page)

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9852 Blood	3	a) Not applicable b) Not applicable c) Not applicable	a) 179 ug/g b) 870 ug/g c) 1067 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
9853 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) 28.7 ug/g b) 39.5 ug/g c) 43.3 ug/g d) 33.0 ug/g e) 79.7 ug/g f) 93.1 ug/g g) 20.6 ug/g h) 23.6 ug/g i) 170 ug/g j) 147 ug/g k) 30.1 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
9854 Cartilage	3	a) Not applicable b) Not applicable c) Not applicable	a) 41.5 ug/g b) 2.07 ug/g c) 2.23 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
9855 Cerebellum	3	a) Not applicable b) Not applicable c) Not applicable	a) 17.2 ug/g b) 19.0 ug/g c) 20.0 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
9856 Cerebrum	3	a) Not applicable b) Not applicable c) Not applicable	a) 16.4 ug/g b) 24.4 ug/g c) 34.5 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)

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9857 Diaphragm	a) 1 b) 1	a) Not applicable b) Not applicable	a) 77.6 ug/g b) 108 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
9858 Heart	3	a) Not applicable b) Not applicable c) Not applicable	a) 71.2 ug/g b) 71.3 ug/g c) 105 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
9859 Intestine	3	a) Not applicable b) Not applicable c) Not applicable	a) 95.9 ug/g b) 31.0 ug/g c) 46.0 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
9860 Kidney	3	a) Not applicable b) Not applicable c) Not applicable	a) 87.9 ug/g b) 130 ug/g c) 169 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
9861 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 448 ug/g b) 360 ug/g c) 104 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
9862 Lung	3	a) Not applicable b) Not applicable c) Not applicable	a) 93.4 ug/g b) 121 ug/g c) 282 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)

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9863 Mammary gland	1	Not applicable	143 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
9864 Medulla oblongata	3	a) Not applicable b) Not applicable c) Not applicable	a) 13.8 ug/g b) 18.5 ug/g c) 23.8 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
9865 Muscle	a) 1 b) 1 c) 1	a) 37.1-42.3 ug/g b) 170-197 ug/g c) 167-207 ug/g Wet wt	a) 39.5+/-2.34 ug/g b) 182+/-17.8 ug/g c) 192+/-16.1 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
9866 Ovary	1	Not applicable	139 ug/g Wet wt	Female fetus, 12/78, wt 10 kg, age 11.6 mo. Japan, Taiji, Kii Peninsula AAS
9867 Pancreas	3	a) Not applicable b) Not applicable c) Not applicable	a) 104 ug/g b) 45.5 ug/g c) 39.5 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
9868 Placenta	1	Not applicable	244 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
9869 Skin	3	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 241 ug/g b) 78.0 ug/g c) 48.8 ug/g d) 12.3 ug/g e) 64.4 ug/g f) 6.44 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

(next page)

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9870 Spleen	3	a) Not applicable b) Not applicable c) Not applicable	a) 220 ug/g b) 75.5 ug/g c) 99.9 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
9871 Stomach	3	a) 44.0-82.9 ug/g b) 38.2-64.1 ug/g c) 32.8-59.8 ug/g Wet wt	a) 61.5 ug/g b) 48.8 ug/g c) 53.0 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. Means calculated by extractor from data for 3 samples. Japan, Taiji, Kii Peninsula AAS
9872 Testis	1	Not applicable	78.4 ug/g Wet wt	Mature male, 12/78, wt 145 kg, age 16.5 mo. Japan, Taiji, Kii Peninsula AAS
9873 Umbilical cord	1	Not applicable	45.8 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
9874 Uterus	a) 1 b) 1	a) Not applicable b) Not applicable	a) 51.8 ug/g b) 110 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
9875 Vagina	a) 1 b) 1	a) Not applicable b) Not applicable	a) 26.0 ug/g b) 71.5 ug/g Wet wt	a) Female fetus b) Pregnant 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Eel, American
ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
9876 Muscle	2	0.007-0.009 mg/kg Wet wt	0.008 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
9877 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) 30.4+/-7.40 ug/g b) 38.4+/-5.48 ug/g c) 47.2+/-5.54 ug/g d) 55.7+/-6.37 ug/g e) 69.2+/-9.85 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 38.3+/-8.41 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
9878 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) 46.4 ug/g b) 37.7 ug/g c) 36.6 ug/g d) 35.9 ug/g e) 30.0 ug/g f) 95.6 ug/g g) 24.7 ug/g h) 31.8 ug/g i) 91.6 ug/g j) 70.7 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9879 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) 25.2+/-5.30 ug/g b) 39.9+/-13.1+/-ug/g c) 45.5+/-21.1 ug/g d) 52.4+/-20.6 ug/g e) 50.2+/-5.53 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 43.2+/-15.2 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
9880 Brain	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 24.6+/-2.10 ug/g b) 25.3+/-2.98 ug/g c) 26.1+/-5.32 ug/g d) 27.4+/-6.73 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 24.7+/-6.93 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
9881 Feathers	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 18.2 ug/g b) 87.4 ug/g c) 168 ug/g d) 286 ug/g e) 18.0 ug/g f) 147 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

Iron

7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9882 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) 3.20+/-0.32 ug/g b) 26.0+/-6.85 ug/g c) 51.4+/-21.5 ug/g d) 13.0+/-1.70 ug/g e) 91.5+/-28.9 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 31.4+/-17.4 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
9883 Kidney	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 53.6+/-4.02 ug/g b) 115+/-63.2 ug/g c) 67.5+/-19.8 ug/g d) 12.2+/-22.4 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 84.7+/-30.7 g/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
9884 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) 103+/-35.6 ug/g b) 76.1+/-4.21 ug/g c) 369+/-305 ug/g d) 389+/-83.4 ug/g e) 230+/-39.8 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 182+/-182 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
9885 Muscle	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 36.4 ug/g b) 37.1 ug/g c) 77.6 ug/g d) 63.7 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

Iron

7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
9886 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) 28.7+/-6.51 ug/g b) 30.0+/-3.19 ug/g c) 33.4+/-3.69 ug/g d) 37.3+/-10.7 ug/g e) 48.2+/-9.49 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 31.6+/-4.92 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
9887 Skin	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 25.8+/-3.67 ug/g b) 38.4+/-19.3 ug/g c) 29.1+/-11.9 ug/g d) 110+/-16.5 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 29.9+/-11.2 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

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9888 Hair	2	1-1.1 ug/g	1 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Grouse, ruffed
BONASA UMBELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9889 Feathers	11	8.08-81.19 ug/g Dry wt	32.01+/-5.37 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
9890 Feathers	14	23.56-139.50 ug/g Dry wt	69.14+/-8.17 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

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
9891 Hair	9	5-22 ug/g	10 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Hamster, golden

Tissue	Cases Exposure Route	Range	Mean	General Information
9892 Hair	5	6-11 ug/g	9 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

Killifish
FUNDULUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9893 Body	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 153.0 ug/g b) 343.0 ug/g c) 450.0 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

Mackerel, chub
SCOMBER JAPONICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9894 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Monkey, crab-eating

Tissue	Cases Exposure Route	Range	Mean	General Information
9895 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

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
9896 Hair	4	8-15 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

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9897 Gills	a) 15 b) 14	a) 81-585 ug/g b) 93-967 ug/g Dry wt	a) 260+/-150 ug/g b) 394+/-246 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
9898 Viscera	a) 15 b) 14	a) 53-1331 ug/g b) 163-938 ug/g Dry wt	a) 481+/-422 ug/g b) 449+/-223 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Oyster, cape
CRASSOSTREA MARGARITACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
9899 Body	426 (approx)	7+/-4-54+/-26 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				

Pig, miniature

Tissue	Cases Exposure Route	Range	Mean	General Information
9900 Hair	1	Not applicable	10 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				

Ptarmigan, willow
LAGOPUS LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9901 Feathers	22	5.30-70.78 ug/g Dry wt	19.04+/-3.19 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				

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Rabbit

Tissue	Cases Exposure Route	Range	Mean	General Information
9902 Hair	6	<2-11 ug/g	5 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9903 Hair		14-16 ug/g	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

Shark, sandbar
CARCHARHINUS MILBERTI

Tissue	Cases Exposure Route	Range	Mean	General Information
9904 Bone, vertebra				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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9905 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) 182+/-9 ug/dl b) 195+/-9 ug/dl c) 199+/-9 ug/dl d) 125+/-16 ug/dl e) 168+/-16 ug/dl f) 148+/-16 ug/dl g) 147+/-11 ug/dl h) 141+/-11 ug/dl i) 151+/-11 ug/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. AAS
9906 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) 595+/-98 ug/ml b) 817+/-98 ug/ml c) 891+/-98 ug/ml d) 282+/-16 ug/ml e) 251+/-16 ug/ml f) 211+/-16 ug/ml g) 239+/-21 ug/ml h) 191+/-21 ug/ml i) 209+/-21 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
9907 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 52+/-10 ug/g b) 61+/-10 ug/g c) 56+/-10 ug/g S.E. Wet 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9908 Brain	a) 7 b) 15	a) Not given b) Not given	a) 21.8+/-3.0 ug/g b) 29.7+/-9.5 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
9909 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 320+/-70 ug/g b) 316+/-70 ug/g c) 417+/-70 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
9910 Kidney	a) 7 b) 15	a) Not given b) Not given c) Not given d) Not given	a) 67.1+/-24.4 ug/g b) 40.2+/-6.8 ug/g c) 36.0+/-31.2 ug/g d) 25.8+/-4.2 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9911 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 626+/-100 ug/g b) 873+/-100 ug/g c) 1,092+/-100 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
9912 Liver	a) 7 b) 15	a) Not given b) Not given	a) 99.3+/-29.2 ug/g b) 105.6+/-102.6 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
9913 Milk	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.9+/-0.1 ug/ml b) 1.0+/-0.1 ug/ml c) 0.9+/-0.1 ug/ml d) 0.9+/-0.2 ug/ml e) 0.9+/-0.2 ug/ml f) 0.9+/-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 Fine-wool ewes, fed given diets for 2 yr. SS are gamma-irradiated primary municipal sewage solids from Las Cruces, NM. AAS

(next page)

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9914 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 92+/-7 ug/g b) 91+/-7 ug/g c) 105+/-7 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
9915 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 1,407+/-682 ug/g b) 711+/-682 ug/g c) 3,481+/-682 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

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
9916 Body		225-1675 ug/g Dry wt	650 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

Iron
7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Sponge (P. foetida)
PROSTYLYSSA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
9917 Body		1000-3250 ug/g Dry wt	2100 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

Sunfish, redbreast
LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9918 Muscle	2	0.003-0.006 mg/kg Wet wt	0.005 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
9919 Muscle	2	0.003-0.005 mg/kg Wet wt	0.004 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

Iron

7439-89-6
Fe
AtW 55.847, MP 1535 C (pure), 1000-1300 C (cast), 1500 C (wrought), 1300 C (steel), BP 3000 C, VP 1 mm Hg at 1787 C, 10 mm Hg at 2040 C

Tern, common
STERNA HIRUNDO

Tissue	Cases Exposure Route	Range	Mean	General Information
9920 Liver	a) 14 b) 15 c) 6	a) 333.2-853.9 ug/g b) 214.2-708.0 ug/g c) 367.8-971.9 ug/g Dry wt	a) 609.7 ug/g b) 403.8 ug/g c) 644.4 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

Tilefish
LOPHOLATILUS CHAMAELEONTICEPS

Tissue	Cases Exposure Route	Range	Mean	General Information
9921 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

Kronitex 200 (Ambiguous postings in CHEMLINE).
96300-97-9
Minnow, fathead
PIMEPHALES PROMELAS

Tissue	Cases Exposure Route	Range	Mean	General Information
9922 Body, whole	148	a) <1-<1 ug/g b) 1-3 ug/g c) 15-31 ug/g d) 3-16 ug/g e) 23-67 ug/g f) 285-470 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, 30, 60 & 90 d b) As in a) except exposed to 2 ug/L Kronitex, 30 & 90 d c) As in a) except exposed to 36 ug/L, 30 & 90 d d) Unexposed control, component measured was isopropyl diphenyl phosphate, 90 & 30 d e) As in d) except exposed to 3 ug/L, 90 & 60 d f) As in d) except exposed to 52 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C
Avocet, American
RECURVIROSTRA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
9928 Liver	a) 10 b) 5 c) 5	a) Not detected-5.6 ppm b) Not detected-6.2 ppm c) Not detected-0.2 ppm Wet wt	a) 0.81 ppm b) 1.3 ppm c) 0.1 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 2.0 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
9924 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 2.00 ug/g b) 1.70 ug/g c) 1.90 ug/g d) 1.33 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
9925 Muscle	3	0.001-0.002 mg/kg Wet wt	0.002 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Bass, smallmouth
MICROPTERUS DOLOMIEUI

Tissue	Cases Exposure Route	Range	Mean	General Information
9926 Muscle	a) 10 b) 8 c) 9 d) 10 e) 10 f) 10 g) 10 h) 10 i) 6 j) 10 k) 5 l) 3 m) 10	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) 0.08+/-0.03 ppm b) 0.04+/-0.005 ppm c) 0.17+/-0.06 ppm d) 0.05+/-0.01 ppm e) 0.15+/-0.03 ppm f) 0.05+/-0.006 ppm g) 0.11+/-0.02 ppm h) 0.10+/-0.02 ppm i) 0.04+/-0.007 ppm j) 0.03+/-0.004 ppm k) 0.05+/-0.01 ppm l) 0.04+/-0.01 ppm m) 0.04+/-0.006 ppm Wet wt	a) 24 mi upstream from ruptured Desloge tailings pond, Big River b) 7 mi c) 3 mi downstream d) 15 mi e) 40 mi f) 58 mi g) 85 mi h) 95 i) Bourbeuse River j) Courtois Creek k) Huzzah Creek l) Black River m) Shoal Creek control In b), site is just downstream from Leadwood tailings pond. Missouri, Old and New Lead Belts and Tri-State Mining District

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION
Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745

Bass, spotted
MICROPTERUS PUNCTULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9927 Muscle	a) 10 b) 10 c) 10	a) Not given b) Not given c) Not given	a) 0.05+/-0.01 ppm b) 0.03+/-0.006 ppm c) 0.03+/-0.004 ppm Wet wt	a) Spring River b) Center Creek c) Shoal Creek Missouri, Old and New Lead Belts and Tri-State Mining District

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION
Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Bass, striped
MORONE SAXATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9928 Gonads	a) 9 b) 10	a) Not detected-17.0 ug/g b) Not detected-0.733 ug/g	a) Not given b) Not given	a) Collected 1978, Choptank River b) Collected April, 1979, Rock Hall, Chesapeake Bay. Detection limit 0.01. 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
9929 Liver	a) 28 b) 10	Not detectable-3.74	Not given	Collected May, 1978, Turkey Creek. Detection limit 0.5. 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
9930 Muscle	a) 28 b) 10	a) Not detected b) Not detected	a) Not detected b) Not detected	a) Collected May, 1978, Turkey Point b) Collected April, 1979, Rock Detection limit 0.5. 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

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
9931 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; 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.

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Bear
URSUS SPELEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9932 Bone	4	Not detected-8 ug/g	Not applicable	Pleistocene (20-50,000 yr BP) specimens. Humerus, femur and ulna, collected from caves, late 19th century. Detection limit 1.0 ug/g. Pb may be leached from bones during fossilization. France 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

Beetle

Tissue	Cases Exposure Route	Range	Mean	General Information
9933 Body		Not given	0.1 mg/kg Dry wt	Larvae collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Level considered very low. 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
9934 Body		Not given	0.1 mg/kg Dry wt	Larvae collected June-Oct 79 at Palmerton, 2 km downwind of smelters. Levels considered very low. 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Beetle, carrion
NICROPHORUS TOMENTOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9935 Body		a) Not given b) Not given	a) 1.6 mg/kg b) 2.5 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

Bird

Tissue	Cases Exposure Route	Range	Mean	General Information
9936 Liver	a) 2 b) 4	a) 0.21-0.31 ppm b) Not detected-3.2 ppm Dry wt	a) 0.255 ppm b) Not given 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 1/4 from Kesterson National Wildlife Refuge in Merced Co., 10 km from Volta, in which agricultural drainage water is being used for marsh management Detection limit 0.2 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C
Birds, marsh

Tissue	Cases Exposure Route	Range	Mean	General Information
9937 Bone	a) 26 b) 28 c) 11 Ingestion	a) Not given b) Not given c) Not given	a) 11.28+/-0.96 mg/kg b) 5.47+/-0.48 mg/kg c) 6.22+/-0.68 mg/kg S.E. Wet wt	a) Mud-probing species, Pb shot in gizzard (5 individuals from HIMANTOPUS MEXICANUS, PLEGADIS CHIHI, LIMNODROMUS SCOLOPACEUS) b) Mud probers, no Pb in gizzards (TOTANUS FLAVIPES, EROLIA MINUTILLA, EROLIA MELANOTOS, EREUNETES MAURI, MACROPALAMA HIMANTOPUS, CATOTROPHORUS SEMIPALMATUS) c) Non-probers, no Pb in gizzard (RALLUS ELEGANS, GALLINULA CHLOROPUS, NYCTICORAX NYCTICORAX, CHLIDONIAS NIGER, BUBULCUS IBIS) Significantly higher ($p<0.05$), a) than b) or c). Texas, Chambers County ICP-AES
9938 Feathers	a) 26 b) 28 c) 11 Ingestion	a) Not given b) Not given c) Not given	a) 3.87+/-0.44 mg/kg b) 5.20+/-1.26 mg/kg c) 2.03+/-0.39 mg/kg S.E. Dry wt	a) Mud-probing species, Pb shot in gizzard (5 individuals from HIMANTOPUS MEXICANUS, PLEGADIS CHIHI, LIMNODROMUS SCOLOPACEUS) b) Mud probers, no Pb in gizzards (TOTANUS FLAVIPES, EROLIA MINUTILLA, EROLIA MELANOTOS, EREUNETES MAURI, MACROPALAMA HIMANTOPUS, CATOTROPHORUS SEMIPALMATUS) c) Non-probers, no Pb in gizzard (RALLUS ELEGANS, GALLINULA CHLOROPUS, NYCTICORAX NYCTICORAX, CHLIDONIAS NIGER, BUBULCUS IBIS) Significantly higher ($p<0.05$), b) than c). Texas, Chambers County ICP-AES
9939 Liver	a) 26 b) 28 c) 11 Ingestion	a) Not given b) Not given c) Not given	a) 0.34+/-0.33 mg/kg b) 0.03+/-0.02 mg/kg c) 0.00+/-0.00 S.E. Wet wt	a) Mud-probing species, Pb shot in gizzard (5 individuals from HIMANTOPUS MEXICANUS, PLEGADIS CHIHI, LIMNODROMUS SCOLOPACEUS) b) Mud probers, no Pb in gizzards (TOTANUS FLAVIPES, EROLIA MINUTILLA, EROLIA MELANOTOS, EREUNETES MAURI, MACROPALAMA HIMANTOPUS, CATOTROPHORUS SEMIPALMATUS) c) Non-probers, no Pb in gizzard (RALLUS ELEGANS, GALLINULA CHLOROPUS, NYCTICORAX NYCTICORAX, CHLIDONIAS NIGER, BUBULCUS IBIS) No significant ($p<0.05$) difference. Texas, Chambers County ICP-AES

BONES; FEATHERS; LIVER; BIRDS; AQUATIC; ENVIRONMENTAL EXPOSURE; TEXAS; ARSENIC; LEAD; ACCIDENTAL POISONING; METALS
Hall, S.L.; Fish, F.M. 1985 Bulletin of Environmental Contamination and Toxicology 35:1-8

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Blowfly
CALLIPHORIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9940 Body		Not given	15 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				

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9941 Muscle	2	0.002-0.002 mg/kg Wet wt	0.002 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
9942 Liver	5	0.73-1.96 ppm Wet wt	1.19 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Boar
SUS SCROFA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9943 Muscle	5	0.90-1.25 ppm Wet wt	1.02 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
9944 Body, whole		a) Not given b) Not given c) Not given	a) 2.50 ug/g b) 3.70 ug/g c) 3.70 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
9945 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 7.05 ug/g b) 1.00 ug/g c) 1.30 ug/g d) 1.20 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Bullfrog
RANA CATESBEIANA

Tissue	Cases Exposure Route	Range	Mean	General Information
9946 Body	a) 14 b) 15 c) 15 d) 5 e) 5 f) 5 g) 15 h) 15 i) 15	a) 0.11-6.10 ppm b) 3.50-31.0 ppm c) 2.90-41.0 ppm d) 21.0-300.0 ppm e) 5.30-69.6 ppm f) 5.30-69.6 ppm g) 0.18-4.90 ppm h) Not detected-3.30 ppm i) Not detected-7.40 ppm Wet wt	a) 0.97 ppm b) 13.5 ppm c) 14.0 ppm d) 109.0 ppm e) 12.6 ppm f) 14.9 ppm g) 1.47 ppm h) 1.31 ppm i) 1.22 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 AAS
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Tissue	Cases Exposure Route	Range	Mean	General Information
9947 Body		a) 0.70-270 mg/kg b) 2.6-6.0 mg/kg Dry wt	a) Not given b) Not given	a) 6 highway drainage sites, avg traffic 4272-108,800 vehicles/d b) 2 control sites, ponds >/=9 individuals, total wt 7-125 g wet wt. Pb levels in tadpoles positively correlated with levels in sediment and with traffic volume. Maryland; Virginia AAS
9948 Brain	5	Not applicable	3.00 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 AAS
9949 Liver	5	Not applicable	6.30 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 AAS
9950 Muscle	5	Not applicable	1.70 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 AAS
9951 Skin	5	Not applicable	4.30 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 AAS
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Carp
CYPRINUS CARPIO

Tissue	Cases Exposure Route	Range	Mean	General Information
9952 Muscle	10	Not given	0.08+/-0.06	Turkey Creek Missouri, Old and New Lead Belts and Tri-State Mining District
MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745				

Cat
FELIS CATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9953 Bone	a) 3 b) 3 Ingestion	a) Not given b) Not given	a) 0.89+/-0.10 ppm b) 4.96+/-0.47 ppm Dry wt	a) Controls, prescription diet b) Diet containing 1 contaminated vole/d Treatment diet, 212.5 g/d, contained 5.68+/-0.48 ppm Pb. 3-mo old SPF kittens on diets for 86 d. Significantly different ($p<0.01$). New York Stripping voltammetry
9954 Kidney	a) 3 b) 3 Ingestion	a) Not given b) Not given	a) 0.16+/-0.01 ppm b) 1.34+/-0.07 ppm Dry wt	a) Controls, prescription diet b) Diet containing 1 contaminated vole/d Treatment diet, 212.5 g/d, contained 5.68+/-0.48 ppm Pb. 3-mo old SPF kittens on diets for 86 d. Significantly different ($p<0.01$). New York Stripping voltammetry
9955 Liver	a) 3 b) 3 Ingestion	a) Not given b) Not given	a) 0.08+/-0.00 ppm b) 0.51+/-0.03 ppm Dry wt	a) Controls, prescription diet b) Diet containing 1 contaminated vole/d Treatment diet, 212.5 g/d, contained 5.68+/-0.48 ppm Pb. 3-mo old SPF kittens on diets for 86 d. Significantly different ($p<0.01$). New York Stripping voltammetry
BODY; KIDNEYS; LIVER; BONES; VOLES; CATS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; NEW YORK; JUVENILES; LEAD POISONING; LEAD; BIOACCUMULATION; LAND POLLUTION; INSECTICIDES Gilmartin, J.E.; Alo, D.K.; Richmond, M.E.; Bache, C.A.; Lisk, D.J. 1985 Bulletin of Environmental Contamination and Toxicology 34:291-294				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Catbird
DUMETELLA CAROLINENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
9956 Body	a) 2 b) 1	a) 21-22 mg/kg b) Not applicable Dry wt	a) 21.5 mg/kg b) 29 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
9957 Muscle	2	0.001-0.002 mg/kg Wet wt	0.002 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

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
9958 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 2.90 ug/g b) 1.30 ug/g c) 3.03 ug/g d) 3.10 ug/g e) 4.10 ug/g f) 0.80 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9959 Bile	8 Ingestion	0.40-1.70 mg/kg Wet wt	0.93+/-0.16 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
9960 Bile	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) 0.37+/-0.08 mg/kg b) 0.40+/-0.26 mg/kg c) 0.58+/-0.14 mg/kg d) 1.66+/-1.17 mg/kg e) 3.25+/-1.94 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Tissue	Cases Exposure Route	Range	Mean	General Information
9961 Blood	a) 78 b) 18 Ingestion	a) Not given b) Not given	a) 0.086 ug/g b) 0.022 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9962 Blood	a) 9 b) 2 Ingestion	a) Not given b) Not given	a) 12.103 ug/100 ml b) 4.322 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 0.8 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9963 Blood	8 Ingestion	1.24-1.91 mg/kg Wet wt	1.50+/-0.08 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
9964 Blood	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) 0.32+/-0.07 mg/kg b) 0.44+/-0.04 mg/kg c) 0.45+/-0.05 mg/kg d) 0.52+/-0.12 mg/kg e) 1.04+/-0.25 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9965 Blood	a) 1 b) 5	a) Not applicable b) 1.2-6.1 ppm	a) 1 ppm b) Not given	a) Case 2, moribund, after death 43.7 ppm in feces b) Clinically normal calves, body wt approx 180 kg Cases of acute Pb poisoning in herd grazing on pasture adjacent to area in which sandblasting/painting on a bridge had contaminated immedicate downwind area. Forage samples near bridge had 60,000 ppm. 10,11/79. Louisiana, Red River Various symptoms in affected animals included: blindness, teeth grating, weakness, recumbancy, depression.

ENVIRONMENTAL EXPOSURE; LEAD; CATTLE; TERRESTRIAL; INGESTION; KIDNEYS; LIVER; BLOOD; LOUISIANA; METAL POISONING
Every, R.R.; Nicholson, S.S. 1981 Journal of the American Veterinary Medical Association 178(12):277-1278

Tissue	Cases Exposure Route	Range	Mean	General Information
9966 *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
9967 Blood, serum	607	a) 0.1-0.3 mg/L b) Not detected	a) Not given b) Not given	a) 12 cases b) 595 cases Detection limit 1.0 mg/L. 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9968 Bone	85 Ingestion	a) <0.1 ug/g b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given Dry wt	a) Not given b) <0.1 ug/g c) <0.9 ug/g d) <1.4 ug/g e) 2.3 ug/g f) 2.5 ug/g g) 14.9 ug/g h) 4.0 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, 35 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 Significant differences: e) & g) and g) & h), p<0.01.

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
9969 Bone	a) 62 b) 27 Ingestion	a) Not given b) Not given	a) 1.8 ug/g b) 0.6 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
9970 Bone	10	Not detected	Not applicable	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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9971 Bone	8 Ingestion	a) 57.14-150.05 mg/kg b) 76.43-156.19 mg/kg Wet wt	a) 97.79+/-12.64 mg/kg b) 110.56+/-11.20 mg/kg Wet wt	a) Rib b) Femoral head 2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
9972 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9973 Bone, femur	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) 5.81+/-1.49 mg/kg b) 6.71+/-1.41 mg/kg c) 13.21+/-3.01 mg/kg d) 13.11+/-2.27 mg/kg e) 71.96+/-26.77 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9974 Bone, rib	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) 4.29+/-0.74 mg/kg b) 5.74+/-1.53 mg/kg c) 12.55+/-4.69 mg/kg d) 9.44+/-2.15 mg/kg e) 57.26+/-12.32 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Tissue	Cases Exposure Route	Range	Mean	General Information
9975 Brain	a) 58 b) 26 Ingestion	a) Not given b) Not given	a) <0.1 ug/g b) <0.1 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
9976 Brain	a) 59 b) 24 Ingestion	a) Not given b) Not given	a) 0.1 ug/g b) 0.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9977 Brain	8 Ingestion	a) 0.43-1.09 mg/kg b) 0.57-1.28 mg/kg c) 0.70-2.03 mg/kg Wet wt	a) 0.71+/-0.08 mg/kg b) 0.93+/-0.09 mg/kg c) 1.30+/-0.09 mg/kg c) 1.30+/-0.15 mg/kg Wet wt	a) Cerebellum b) Brain stem c) Cerebrum 2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
9978 Brain	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) 0.13+/-0.02 mg/kg b) 0.15+/-0.02 mg/kg c) 0.27+/-0.03 mg/kg d) 0.27+/-0.02 mg/kg e) 0.72+/-0.29 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Brainstem. Signs of intoxication. One death, day 7
9979 Cerebellum	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) 0.18+/-0.01 mg/kg b) 0.24+/-0.08 mg/kg c) 0.39+/-0.13 mg/kg d) 0.35+/-0.09 mg/kg e) 0.60+/-0.15 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
9980 Cerebrum	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) 0.18+/-0.01 mg/kg b) 0.18+/-0.05 mg/kg c) 0.39+/-0.08 mg/kg d) 0.37+/-0.04 mg/kg e) 0.71+/-0.17 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Tissue	Cases Exposure Route	Range	Mean	General Information
9981 Diaphragm	a) 5 b) 10 c) 6 d) 9 e) 35 f) 68 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) <0.1 ug/g b) <0.1 ug/g c) <0.1 ug/g d) <0.1 ug/g e) <0.1 ug/g f) <0.1 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
9982 Diaphragm	a) 63 b) 29 Ingestion	a) Not given b) Not given	a) 0.1 ug/g b) 0.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9983 Hair	Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 1.116 ug/g b) 0.959 ug/g c) 1.222 ug/g d) 0.912 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 557 mg/kg. Detection limit 0.10 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
9984 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
9985 Heart	a) 5 b) 10 c) 6 d) 9 e) 35 f) 68 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) <0.1 ug/g b) <0.1 ug/g c) <0.1 ug/g d) <0.1 ug/g e) <0.1 ug/g f) <0.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9986 Heart	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 0.1 ug/g b) 0.1 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
9987 Heart	8 Ingestion	0.15-0.39 mg/kg Wet wt	0.23+/-0.03 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
9988 Heart	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) 0.11+/-0.03 mg/kg b) 0.11+/-0.02 mg/kg c) 0.21+/-0.04 mg/kg d) 0.20+/-0.03 mg/kg e) 0.51+/-0.18 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9989 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) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given	a) <0.1 ug/g b) <0.1 ug/g c) <0.1 ug/g d) <0.1 ug/g e) <0.1 ug/g f) <0.1 ug/g g) <0.1 ug/g h) <0.1 ug/g i) <0.1 ug/g j) <0.1 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
9990 Kidney	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 0.1 ug/g b) 0.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9991 Kidney	24 Ingestion	a) 6.35-138.98 mg/kg b) 1.68-168.45 mg/kg c) 33.90-991.50 mg/kg d) 7.54-846.77 mg/kg e) 5.93-128.81 mg/kg f) 6.35-133.93 mg/kg	a) 54.26+/-9.63 mg/kg b) 51.64+/-11.06 c) 344.11+/-65.83 mg/kg d) 261.39+/-57.46 mg/kg e) 49.65+/-12.85 mg/kg f) 51.91+/-13.30 mg/kg	a) Tissues frozen 6 mo, wet wt b) Tissue fixed 6 mo c) Frozen 6 mo, dry wt d) Fixed 6 mo e) Freshly collected tissue, wet wt f) Same tissue as e) frozen 6 mo 4-5 wk old Holstein bull calves, baseline blood level <3.0 ug/dl, dosed 7 d with 5 mg/kg/d as Pb acetate. 10% neutral formalin used as fixative. Results from fixed tissue can be used to estimate levels in fresh tissue. Method of analysis (wet or dry weight) did not affect accuracy of estimate. No Pb leaching. Ataxia, tremors, depression, problems nursing, hyperexcitablity, blindness. Nine deaths by d 7. AAS

KIDNEYS; LIVER; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; JUVENILES; METAL POISONING; BEHAVIOR DISORDERS; NERVOUS SYSTEM DISEASES; COMPARATIVE EVALUATIONS; MEASUREMENT METHODS; LEAD; METALS
Bratton, G.R.; Zmudzki, J.; Richardson, E.W. 1985 Veterinary and Human Toxicology 27(1):7-10

Tissue	Cases Exposure Route	Range	Mean	General Information
9992 Kidney	a) 36 b) 36 Ingestion	a) Not given b) Not given	a) 0.718 ug/g b) 0.415 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 557 mg/kg) b) Calves grazed on control, untreated pasture Detection limit 0.04 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9993 Kidney	8 Ingestion	23.64-247.25 mg/kg Wet wt	105.39+/-24.64 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
9994 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) 3.6 ug/g b) 0.8 ug/g c) 0.95 ug/g d) 11 ug/g e) 0.9 ug/g f) 15.8 ug/g g) 1.4 ug/g h) 4.3 ug/g i) 3.4 ug/g j) 1.1 ug/g k) 5.2 ug/g l) 3.4 ug/g	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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9995 Kidney	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) 9.89+/-7.20 mg/kg b) 10.20+/-5.61 mg/kg c) 24.58+/-13.24 mg/kg d) 19.45+/-11.78 mg/kg e) 104.28+/-33.81 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Tissue	Cases Exposure Route	Range	Mean	General Information
9996 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

Tissue	Cases Exposure Route	Range	Mean	General Information
9997 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.33 ug/g b) 2.02 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, 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
9998 Kidney	a) 1 b) 1 c) 1 d) 1 Ingestion	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 351 ppm b) 31.3 ppm c) 12 ppm d) 19 ppm	a) Case 1, found dead, 1329 ppm in feces b) Case 2, moribund, after death 43.7 ppm in feces c) Case 3, recumbunt, death within 24 hr d) Case 4, dam of 2 calves which recovered from symptoms Cases of acute Pb poisoning in herd grazing on pasture adjacent to area in which sandblasting/painting of bridge had contaminated immediate downwind area. Forage samples near bridge had 60,000 ppm. 10,11/79. Louisiana, Red River Various symptoms in affected animals included: blindness, teeth grating, weakness, recumbancy, depression.

ENVIRONMENTAL EXPOSURE; LEAD; CATTLE; TERRESTRIAL; INGESTION; KIDNEYS; LIVER; BLOOD; LOUISIANA; METAL POISONING
Every, R.R.; Nicholson, S.S. 1981 Journal of the American Veterinary Medical Association 178(12):277-1278

Tissue	Cases Exposure Route	Range	Mean	General Information
9999 Liver	229	a) 2.1-3.6 mg/kg b) Not detected Wet wt	a) Not given b) Not given	a) 6 cases b) 223 cases Detection limit 1.0 mg/L. Mineral profile, 1981-83. 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
10000 Liver	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) Not given d) Not given e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given	a) <0.1 ug/g b) <0.1 ug/g c) <0.1 ug/g d) <0.1 ug/g e) <0.1 ug/g f) <0.1 ug/g g) <0.1 ug/g h) <0.1 ug/g i) <0.1 ug/g j) <0.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10001 Liver	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 0.1 ug/g b) 0.1 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
10002 Liver	24 Ingestion	a) 1.70-61.11 mg/kg b) 1.72-74.42 mg/kg c) 7.22-296.92 mg/kg d) 7.11-274.73 mg/kg e) 1.83-54.98 mg/kg f) 1.97-56.20 mg/kg	a) 19.20+/-3.95 mg/kg b) 19.97+/-4.07 mg/kg c) 86.61+/-18.52 mg/kg d) 89.62+/-17.78 mg/kg e) 18.13+/-5.56 mg/kg f) 18.43+/-5.69 mg/kg	a) Tissues frozen 6 mo, wet wt b) Tissue fixed 6 mo c) Frozen 6 mo, dry wt d) Fixed 6 mo e) Freshly collected tissue, wet wt f) Same tissue as e) frozen 6 mo 4-5 wk old Holstein bull calves, baseline blood level <3.0 ug/dl, dosed 7 d with 5 mg/kg/d as Pb acetate. 10% neutral formalin used as fixative. Results from fixed tissue can be used to estimate levels in fresh tissue. Method of analysis (wet or dry weight) did not affect accuracy of estimate. No Pb leaching. Ataxia, tremors, depression, problems nursing, hyperexcitablity, blindness. Nine deaths by d 7. AAS

KIDNEYS; LIVER; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; JUVENILES; METAL POISONING; BEHAVIOR DISORDERS; NERVOUS SYSTEM DISEASES; COMPARATIVE EVALUATIONS; MEASUREMENT METHODS; LEAD; METALS
Bratton, G.R.; Zmudzki, J.; Richardson, E.W. 1985 Veterinary and Human Toxicology 27(1):7-10

Tissue	Cases Exposure Route	Range	Mean	General Information
10003 Liver	a) 36 b) 36 Ingestion	a) Not given b) Not given	a) 0.517 ug/g b) 0.397 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 557 mg/kg) b) Calves grazed on control, untreated pasture Detection limit 0.04 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10004 Liver	8 Ingestion	7.66-32.43 mg/kg Wet wt	17.04+/-3.14 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10005 Liver	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1.8 ug/g b) 0.3 ug/g c) 0.31 ug/g d) 4.3 ug/g e) 0.2 ug/g f) 4.6 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
10006 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10007 Liver	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) 20.02+/-9.77 mg/kg b) 19.93+/-13.69 mg/kg c) 31.13+/-8.87 mg/kg d) 38.92+/-28.98 mg/kg e) 36.42+/-15.56 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Tissue	Cases Exposure Route	Range	Mean	General Information
10008 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.25 ug/g b) 1.47 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, 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
10009 Liver	a) 1 b) 1 Ingestion	a) Not applicable b) Not applicable	a) 12.8 ppm b) 9 ppm	a) Case 2, moribund, after death 43.7 ppm in feces b) Case 4, dam of 2 calves which recovered from symptoms Cases of acute Pb poisoning in herd grazing on pasture adjacent to area in which sandblasting/painting of bridge had contaminated immediate downwind area. Forage samples near bridge had 60,000 ppm. 10,11/79. Louisiana, Red River Various symptoms in affected animals included: blindness, teeth grating, weakness, recumbancy, depression.

ENVIRONMENTAL EXPOSURE; LEAD; CATTLE; TERRESTRIAL; INGESTION; KIDNEYS; LIVER; BLOOD; LOUISIANA; METAL POISONING

Every, R.R.; Nicholson, S.S. 1981 Journal of the American Veterinary Medical Association 178(12):277-1278

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10010 Lung	8 Ingestion	0.43-1.42 mg/kg Wet wt	0.90+/-0.14 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10011 Lung	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) 0.36+/-0.04 mg/kg b) 0.31+/-0.11 mg/kg c) 0.67+/-0.01 mg/kg d) 0.58+/-0.11 mg/kg e) 1.43+/-0.13 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Tissue	Cases Exposure Route	Range	Mean	General Information
10012 Milk	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 0.013 ug/g b) 0.010 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10013 Muscle	a) 36 b) 36 Ingestion	a) Not given b) Not given	a) Below detection limit b) Below detection limit	a) After 30-day waiting period, calves grazed on sewage sludge-treated pasture (2-10 metric tons/hectare, mean applied in 1978-82 was 557 mg/kg) b) Calves grazed on control, untreated pasture Detection limit 0.032 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
10014 Muscle	8 Ingestion	0.10-0.46 mg/kg Wet wt	0.22+/-0.05 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10015 Muscle	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) 0.08+/-0.03 mg/kg b) 0.07+/-0.01 mg/kg c) 0.15+/-0.01 mg/kg d) 0.14+/-0.01 mg/kg e) 0.26+/-0.08 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10016 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.06 ug/g b) 0.14 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, 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
10017 Nerve	8 Ingestion	0.20-0.62 mg/kg Wet wt	0.43+/-0.05 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10018 Nerve	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) 0.19+/-0.05 mg/kg b) 0.16+/-0.02 mg/kg c) 0.33+/-0.05 mg/kg d) 0.31+/-0.02 mg/kg e) 0.99+/-0.22 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer Sciatic nerve in 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10019 Pancreas	8 Ingestion	1.47-4.68 mg/kg Wet wt	2.82+/-0.38 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10020 Pancreas	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) 0.89+/-0.20 mg/kg b) 1.15+/-0.31 mg/kg c) 3.51+/-1.74 mg/kg d) 1.93+/-0.44 mg/kg e) 6.26+/-2.72 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Lead
7439-92-1
Pb
AtW 207.2, *MP* 327.4 C, *BP* 1740 C, *VP* 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10021 Spinal cord	8 Ingestion	0.24-0.71 mg/kg Wet wt	0.40+/-0.06 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10022 Spinal cord	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) 0.08+/-0.02 mg/kg b) 0.08+/-0.01 mg/kg c) 0.15+/-0.03 mg/kg d) 0.18+/-0.02 mg/kg e) 0.30+/-0.06 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. *Signs of intoxication.* One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10023 Spleen	8 Ingestion	0.65-2.82 mg/kg Wet wt	1.21+/-0.25 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10024 Spleen	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) 0.49+/-0.08 mg/kg b) 0.39+/-0.06 mg/kg c) 1.15+/-0.24 mg/kg d) 0.93+/-0.30 mg/kg e) 1.19+/-0.13 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD

Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Tissue	Cases Exposure Route	Range	Mean	General Information
10025 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.33 ug/g b) 0.68 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, 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10026 Testis	8 Ingestion	0.18-1.12 mg/kg Wet wt	0.62+/-0.17 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10027 Testis	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) 0.15+/-0.02 mg/kg b) 0.19+/-0.05 mg/kg c) 0.31+/-0.11 mg/kg d) 0.30+/-0.06 mg/kg e) 1.13+/-0.25 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10028 Urine	8 Ingestion	0.08-0.26 mg/kg Wet wt	0.12+/-0.02 mg/kg Wet wt	2-3 wk old Holstein bull calves fed with commercial milk replacer diet with Pb <0.1 mg/kg dry diet. After 7 d, dosed with 1 mg Pb/kg body wt/d (as acetate) for 56 d. Measurements after sacrifice on day 57. Amount Pb necessary to cause chronic intoxication < minimum toxic level reported in literature. Measured at autopsy. Texas During wk 4, decreased activity and alertness, 2 had hypoglossal and pharyngeal paresis, 1 appeared blind. Symptoms transient during rest of experiment. 1 died of seizure on d 56. Erythrocyte ALAD activity decreased, erythrocyte ZPP levels increased. AAS

CATTLE; DELIBERATE EXPOSURE; DIETS; LEAD; BONES; KIDNEYS; LIVER; SPLEEN; PANCREAS; LUNGS; TESTES; MUSCLES; HEART; NERVES; BRAIN; SPINAL CORD; URINE; BILE; BLOOD; TERRESTRIAL; NEUROLOGIC MANIFESTATIONS; LEAD POISONING
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D. 1985 Bulletin of Environmental Contamination and Toxicology 35:612-619

Tissue	Cases Exposure Route	Range	Mean	General Information
10029 Urine	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) 0.06+/-0.02 mg/kg b) 0.10+/-0.06 mg/kg c) 0.11+/-0.08 mg/kg d) 0.11+/-0.04 mg/kg e) 0.43+/-0.38 mg/kg	a) Grain-hay diet b) Grain-hay + 10% powdered lactose c) Grain-hay + 40% powdered lactose d) Grain-hay + 40% powdered milk replacer e) Liquid milk replacer 1-2 wk old Holstein-Friesian bull calves, wt approx 50 kg. After acclimatization, dosed with 5 mg Pb/kg body wt/d in water for 7 days. Signs of intoxication. One death, day 7

DELIBERATE EXPOSURE; LEAD; CATTLE; DIETS; ANIMAL FEEDS; BIOACCUMULATION; KIDNEYS; LIVER; SPLEEN; PANCREAS; MUSCLES; HEART; LUNGS; TESTES; NERVES; BRAIN; BONES; URINE; BILE; BLOOD
Zmudzki, J.; Bratton, G.R.; Womac, C.; Rowe, L.D.; Wagner, B. 1986 Bulletin of Environmental Contamination and Toxicology 36:356-363

Cattle (ancient)

Tissue	Cases Exposure Route	Range	Mean	General Information
10030 Bone	2	Not detected	Not applicable	Pleistocene (20-50,000 yr BP) metacarpals, Bovidae family. Collected from caves. Detection limit 1.0 ug/g. Pb may be leached from bones during fossilization. France; Poland 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.; Evelyu Peyre 1985 Science of the Total Environment 43:103-126

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Centipede
GEOPHILOMORPHA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10031 Body		Not given	1.2 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
10032 Body	1	Not applicable	9.5 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
10033 Kidney	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 1.9+/-0.4 ppm b) 2.1+/-0.4 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 not significant. Israel AAS
10034 Liver	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 1.7+/-0.1 ppm b) 1.8+/-0.3 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 not significant. 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				

Lead

7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Cicada
MAGICICADA REPTENDECIM

Tissue	Cases Exposure Route	Range	Mean	General Information
10035 Body, whole		a) Not given b) Not given	a) 0.52 mg/kg b) 0.65 mg/kg Dry wt	a) Bake Oven Knob, 10 km upwind of smelters b) Palmerton, 2 km downwind Collected June-Oct 79. Level considered to be very low. 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
CORBICULA FLUMINEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10036 Body		a) 1.02+/-0.25-1.19+/-0.06 ug/g b) 2.53+/-0.38-1.48+/-0.20 ug/g c) 2.03+/-0.13-1.20+/-0.09 ug/g d) 2.39+/-0.28-1.47+/-0.26 ug/g Dry wt S.E. Ranges of means	a) Not given b) Not given c) Not given d) Not given	a) Controls, 100% clean sand b) 10% contaminated sediment (v/v). Day 3 and d 96+136, peak 2.29 ug/g dry wt d 72 c) 50% contaminated sediment. Day 3 and d 96+136, peak 2.20 ug/g d 24 d) 100% contaminated sediment. Day 3 and d 96+136, peak d 3 Exposed for 48 d to sediment, from Sheboygan River, WI, containing environmental contaminants. 88-d depuration followed. Background levels in animals 1.0+/-0.14 ug/g dry wt prior to experiment.

MOLLUSKS; AQUATIC; DELIBERATE EXPOSURE; WATER POLLUTION; LEAD; CADMIUM; POLYCHLORINATED BIPHENYLS; JUVENILES; CRUSTACEANS
Tatem, H.E. 1986 Archives of Environmental Contamination and Toxicology 15:171-183

Tissue	Cases Exposure Route	Range	Mean	General Information
10037 Body		a) Not given b) Not given	a) 0.2+/-0.4 ppm b) 0.5+/-0.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Clam (M. balthica)
MACOMA BALTHICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10038 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) 20.4+/-1.7 ug/g b) 8.4+/-1.4 ug/g c) 3.3+/-0.1 ug/g d) 3.3+/-0.5 ug/g e) 3.6+/-0.5 ug/g S.E. Dry wt	a) Mouth of Patapso 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

Clam (M. lateralis)
MULINEA LATERALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10039 Body	5	Not given	1.4+/-0.2 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
10040 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) 1.3+/-0.2 ug/g b) 0.9+/-0.1 ug/g c) 5.8+/-0.5 ug/g d) 2.6+/-1.2 ug/g e) 0.8+/-0.1 ug/g f) 4.4+/-0.2 ug/g g) 6.8+/-1.1 ug/g h) 7.0+/-2.3 ug/g i) 3.5+/-0.5 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Clam, soft-shelled
MYA ARENARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10041 Body	a) 7 b) 5	a) Not given b) Not given	a) 1.3+/-0.2 ug/g b) 7.6+/-0.8 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
10042 Body	17	0.01-0.25 mg/kg Wet wt	0.07 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978-84. Netherlands DPASV

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
10043 Liver		a) 0.19-0.72 mg/kg b) 0.07-0.48 mg/kg c) 0.02-0.34 mg/kg d) 0.04-0.36 mg/kg e) 0.04-0.26 mg/kg f) 0.02-0.28 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Coot, American
FULICA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
10044 Bone	a) 20 b) 10 c) 80 d) 40	a) Not detected-1.9 ppm b) Not detected-1.7 ppm c) Not detected-3.0 ppm d) Not detected-5.5 ppm Wet wt	a) 0.4 ppm b) 0.3 ppm c) 0.3 ppm d) 0.6 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 1.5 yr post-startup (0.2 and 0.7 ppm, respectively). 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. Femur. 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

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10045 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Crappie, black
POMOXIS NIGROMACULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10046 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1.76 ug/g b) 2.30 ug/g c) 1.55 ug/g d) 1.70 ug/g e) 2.25 ug/g f) 3.43 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

Cuckoo

Tissue	Cases Exposure Route	Range	Mean	General Information
10047 Liver	2	18-25 mg/kg Wet wt	21.5 mg/kg Wet wt	Collected June-Oct 79 at Palmerton site, 2 km downwind of smelters. Alimentary canals, feet, tails, beaks, skin not included. Levels considered high. 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Deer, fallow
DAMA DAMA

Tissue	Cases Exposure Route	Range	Mean	General Information
10048 Liver	8	0.58-4.93 ppm Wet wt	1.14 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10049 Muscle	8	0.60-7.04 ppm Wet wt	1.46 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10050 Liver	8	0.64-2.89 ppm Wet wt	1.12 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10051 Muscle	8	0.46-2.30 ppm Wet wt	0.90 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Deer, white-tailed
ODOCOILEUS VIRGINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10052 Bone	a) 4 b) 7 c) 5	a) Not given b) Not given c) Not given	a) 8.5 b) 8.7 c) 5.8	a) Collected <8 km from zinc smelter b) Collected 10-20 km from smelter c) Collected >100 km from smelter Reported as (ppm, dry wt/% ask)X100, in metacarpal. Pennsylvania, Palmerton AAS
10053 Kidney	a) 4 b) 9 c) 5	a) Not given b) Not given c) Not given	a) 1.8 ppm b) 1.4 ppm c) 0.8 ppm Dry wt	a) Collected <8 km from zinc smelter b) Collected 10-20 km from smelter c) Collected >100 km from smelter Pennsylvania, Palmerton AAS
10054 Liver	a) 4 b) 13 c) 5	a) Not given b) Not given c) Not given	a) 0.8 ppm b) 0.5 ppm c) 0.2 ppm Dry wt	a) Collected <8 km from zinc smelter b) Collected 10-20 km from smelter c) Collected >100 km from smelter Pennsylvania, Palmerton AAS
10055 Teeth	a) 5 b) 12 c) 5	a) Not given b) Not given c) Not given	a) 5.9 ppm b) 3.8 ppm c) 2.2 ppm Dry wt	a) Collected <8 km from zinc smelter b) Collected 10-20 km from smelter c) Collected >100 km from smelter Pennsylvania, Palmerton AAS

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
10056 Blood	a) 24 b) 11 c) 16	a) 1.4-6.0 umol/L b) 0.9-1.6 umol/L c) 2.0-4.8 umol/L	a) Not given b) Not given c) Not given	a) Animals with clinical signs of Pb poisoning, responded to EDTA chelation therapy b) Animals from lead-mining area, 8 wk-8 yr-olds, clinical signs of Pb poisoning, responded to chelation therapy c) Apparently healthy dogs Pb level per se was inadequate to diagnose poisoning. Recovery after treatment Australia Aggressive behaviour, barking, snarling, snapping, hiding in dark places, nervousness, hyperactivity, depression, reaction to noises, frothing at mouth

DOGS; LEAD; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; BLOOD; LEAD POISONING; AUSTRALIA

Koh, T.-S. 1985 Australian Veterinary Journal 62(12):434-435

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dog
CANIS FAMILIARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10057 Bone	2	Not detected	Not applicable	Pleistocene (20-50,000 yr BP) specimens. Tibia and fibula, collected from cave, late 19th century. Detection limit 1.0 ug/g. Pb may be leached from bones during fossilization. France 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				

Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
10058 Adipose	a) 1 b) 1 c) 1	a) 0.01-0.04 ug/g b) 0.05-0.10 ug/g c) 0.05-0.07 ug/g Wet wt	a) 0.03+/-0.01 ug/g b) 0.07+/-0.02 ug/g c) 0.06+/-0.01 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 37.2+/-5.15, 26.7+/-3.41, 28.1+/-5.41, repectively. Japan, Taiji, Kii Peninsula AAS
10059 Adrenal gland	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.03 ug/g b) 0.07 ug/g c) 0.08 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
10060 Amniotic fluid	1	Not applicable	0.14 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10061 Blood	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.07 ug/g b) 0.08 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
10062 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) 0.07 ug/g b) 0.09 ug/g c) 0.07 ug/g d) 0.12 ug/g e) 0.23 ug/g f) 0.40 ug/g g) 0.33 ug/g h) 0.32 ug/g i) 0.25 ug/g j) 0.40 ug/g k) 0.43 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
10063 Cartilage	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.02 ug/g b) 0.03 ug/g c) 0.12 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
10064 Cerebellum	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.03 ug/g b) 0.04 ug/g c) 0.06 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
10065 Cerebrum	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.03 ug/g b) 0.02 ug/g c) 0.03 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)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10066 Diaphragm	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.03 ug/g b) 0.10 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
10067 Heart	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.03 ug/g b) 0.03 ug/g c) 0.05 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
10068 Intestine	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.03 ug/g b) 0.14 ug/g c) 0.09 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
10069 Kidney	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.03 ug/g b) 0.16 ug/g c) 0.16 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
10070 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.02 ug/g b) 0.08 ug/g c) 0.12 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
10071 Lung	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.03 ug/g b) 0.03 ug/g c) 0.03 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)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10072 Mammary gland	1	Not applicable	0.06 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
10073 Medulla oblongata	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.05 ug/g b) 0.01 ug/g c) 0.02 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
10074 Muscle	a) 1 b) 1 c) 1	a) 0.05-0.07 ug/g b) 0.05-0.08 ug/g c) 0.07-0.10 ug/g Wet wt	a) 0.06+/-0.01 ug/g b) 0.07+/-0.01 ug/g c) 0.08+/-0.02 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
10075 Ovary	1	Not applicable	2.14 ug/g Wet wt	Female fetus, 12/78, wt 10 kg, age 11.6 mo. Japan, Taiji, Kii Peninsula AAS
10076 Pancreas	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.06 ug/g b) 0.05 ug/g c) 0.09 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
10077 Placenta	1	Not applicable	0.16 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
10078 Skin	3	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.05 ug/g b) 0.04 ug/g c) 0.08 ug/g d) 0.09 ug/g e) 0.09 ug/g f) 0.11 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

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10079 Spleen	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.07 ug/g b) 0.13 ug/g c) 0.05 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
10080 Stomach	3	a) 0.04-0.06 ug/g b) 0.06-0.15 ug/g c) 0.05-0.12 ug/g Wet wt	a) 0.05 ug/g b) 0.096 ug/g c) 0.07 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
10081 Testis	1	Not applicable	0.04 ug/g Wet wt	Mature male, 12/78, wt 145 kg, age 16.5 mo. Japan, Taiji, Kii Peninsula AAS
10082 Umbilical cord	1	Not applicable	0.10 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
10083 Uterus	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.43 ug/g b) 0.16 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
10084 Vagina	1	Not applicable	0.29 ug/g Wet wt	Female fetus, 12/78, wt 10 kg, age 11.6 mo. 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10085 Blood	a) 14 b) 6 c) 9 d) 11 e) 7 f) 6	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.717+/-0.666 ppm b) 0.481+/-0.164 ppm c) 0.496+/-0.188 ppm d) 1.91+/-4.99 pm e) 0.030+/-0.028 ppm f) 0.065+/-0.061 ppm	a) Collected urban, north b) Urban, west c) Urban, east d) Urban, south e) Control, 1 f) Control, 2 Necropsy. 39/40 urban birds had elevated levels, 11/40 had "sublethal" levels. One bird in d) had 16.95 ppm Pb. Maryland, Baltimore Hemosiderin deposition in liver and kidneys. PSEUDOMONAS infection was cause of death. AAS

BIRDS; LEAD; ENVIRONMENTAL EXPOSURE; MARYLAND; TERRESTRIAL; AUTOPSIES; LIVER; KIDNEYS; URBAN AREAS
DeMent, S.H.; Chisolm, J.J.; Barber, J.C.; Strandberg, J.D. 1986 Journal of Wildlife Diseases 22(2):238-244

Tissue	Cases Exposure Route	Range	Mean	General Information
10086 Blood		a) 30-20 ug/dL b) 30-10 ug/dL c) 5-1 ug/dL d) 30-5 ug/dL Ranges of means	a) Not given b) Not given c) Not given d) Not given	a) Ranges in 1971 & 80, adults caught each May at a bus terminal surrounded by main street and a highway (heavy traffic) b) Crowded temple 100 m from two main streets (heavy traffic) c) Quiet zoo in the suburb (light traffic, urban control site) d) 1976 & 80 before and after transfer from urban sites to Chichijima of Bonin Islands (nearly lead-free site) 1000 km south of Tokyo Levels in 1976 showed no significant change from those in 1971-72 despite a 1975 ban on leaded in gasoline. Biological half-life of Pb in d) ranged from 38 d in 1st mo following transfer to 135 d in 4th mo. Estimated from graph. Japan, Tokyo AAS

BIRDS; JAPAN; LEAD; AUTOMOTIVE; ENVIRONMENTAL EXPOSURE; BIOMAGNIFICATION; BLOOD; ADULTS; AIR POLLUTION; URBAN AREAS; TERRESTRIAL; PIGEONS
Ohi, G.; Seki, H.; Minowa, K.; Ohsawa, M.; Mizoguchi, I.; Sugimori, F. 1981 Environmental Research 26:125-129

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10087 Bone	a) 12 b) 8 c) 8	a) Not given b) Not given c) Not given	a) 245+/-41 ug/g b) 33+/-6 ug/g c) 12+/-1.9 ug/g Dry wt S.E.	a) Urban area, Liverpool b) Suburban area, Dorchester c) Rural area Feral animals. In urban samples trialkyl Pb probably from exhausts, in rural areas from natural sources of organolead. Significant difference between sexes in a): Females 338+/-61 ug/g, males 126+/-30 ug/g. England, Dorchester, Liverpool Urban birds: intranuclear inclusions in proximal tubular lining cells in kidney, some abnormal mitochondria, some cytoplasmic inclusions AAS
10088 Brain	a) 9 b) 7 c) 6	a) Not given b) Not given c) Not given	a) 20.3+/-5 ug/g b) 3.5+/-4 ug/g c) 2.4+/-0.4 ug/g Dry wt S.E.	a) Urban area, Liverpool b) Suburban area, Dorchester c) Rural area Feral animals. In urban samples trialkyl Pb probably from exhausts, in rural areas from natural sources of organolead. UK, England, Dorchester, Liverpool Urban birds: intranuclear inclusions in proximal tubular lining cells in kidney, some abnormal mitochondria, some cytoplasmic inclusions AAS
10089 Heart	a) 12 b) 8 c) 8	a) Not given b) Not given c) Not given	a) 4.7+/-0.6 ug/g b) 2.3+/-0.6 ug/g c) 1.8+/-0.7 ug/g Dry wt S.E.	a) Urban area, Liverpool b) Suburban area, Dorchester c) Rural area Feral animals. In urban samples trialkyl Pb probably from exhausts, in rural areas from natural sources of organolead. UK, England, Dorchester, Liverpool Urban birds: intranuclear inclusions in proximal tubular lining cells in kidney, some abnormal mitochondria, some cytoplasmic inclusions AAS
10090 Kidney	a) 12 b) 8 c) 8	a) Not given b) Not given c) Not given	a) 189+/-52 ug/g b) 17+/-4.4 ug/g c) 6.3+/-2.0 ug/g Dry wt S.E.	a) Urban area, Liverpool b) Suburban area, Dorchester c) Rural area Feral animals. In urban samples trialkyl Pb probably from exhausts, in rural areas from natural sources of organolead. Significant difference between sexes in a): Females 204+/-16 ug/g, males 122+/-12 ug/g. UK, England, Dorchester, Liverpool Urban birds: intranuclear inclusions in proximal tubular lining cells in kidney, some abnormal mitochondria, some cytoplasmic inclusions AAS

ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; KIDNEYS; LIVER; HEART; BONES; BRAIN; MUSCLES; BIRDS; URBAN AREAS; RURAL AREAS

Johnson, M.S.; Pluck, H.; Hutton, M.; Moore, G. 1982 Archives of Environmental Contamination and Toxicology 11:761-767

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10091 Kidney	13	1.71-33.6 ppm	9.53+/-8.77 ppm	Necropsy of urban birds. Positive correlation between levels in liver and in kidneys. Maryland, Baltimore Hemosiderin deposition in liver and kidneys. PSEUDOMONAS infection was cause of death. AAS

BIRDS; LEAD; ENVIRONMENTAL EXPOSURE; MARYLAND; TERRESTRIAL; AUTOPSIES; LIVER; KIDNEYS; URBAN AREAS
DeMent, S.H.; Chisolm, J.J.; Barber, J.C.; Strandberg, J.D. 1986 Journal of Wildlife Diseases 22(2):238-244

Tissue	Cases Exposure Route	Range	Mean	General Information
10092 Liver	a) 12 b) 8 c) 8	a) Not given b) Not given c) Not given	a) 13.7+/-1.6 ug/g b) 6.5+/-1.7 ug/g c) 2.3+/-0.6 ug/g Dry wt S.E.	a) Urban area, Liverpool b) Suburban area, Dorchester c) Rural area Feral animals. In urban samples trialkyl Pb probably from exhausts, in rural areas from natural sources of organolead. UK, England, Dorchester, Liverpool Urban birds: intranuclear inclusions in proximal tubular lining cells in kidney, some abnormal mitochondria, some cytoplasmic inclusions AAS

ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; KIDNEYS; LIVER; HEART; BONES; BRAIN; MUSCLES; BIRDS; URBAN AREAS; RURAL AREAS
Johnson, M.S.; Pluck, H.; Hutton, M.; Moore, G. 1982 Archives of Environmental Contamination and Toxicology 11:761-767

Tissue	Cases Exposure Route	Range	Mean	General Information
10093 Liver	13	1.62-7.95 ppm	3.46+/-1.9 ppm	Necropsy of urban birds. Positive correlation between levels in liver and in kidneys. Maryland, Baltimore Hemosiderin deposition in liver and kidneys. PSEUDOMONAS infection was cause of death. AAS

BIRDS; LEAD; ENVIRONMENTAL EXPOSURE; MARYLAND; TERRESTRIAL; AUTOPSIES; LIVER; KIDNEYS; URBAN AREAS
DeMent, S.H.; Chisolm, J.J.; Barber, J.C.; Strandberg, J.D. 1986 Journal of Wildlife Diseases 22(2):238-244

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10094 Muscle	a) 12 b) 8 c) 8	a) Not given b) Not given c) Not given	a) 3.7+/-0.6 ug/g b) 2.2+/-0.3 ug/g c) 1.8+/-0.2 ug/g Dry wt S.E.	a) Urban area, Liverpool b) Suburban area, Dorchester c) Rural area Feral animals. In urban samples trialkyl Pb probably from exhausts, in rural areas from natural sources of organolead. UK, England, Dorchester, Liverpool Urban birds: intranuclear inclusions in proximal tubular lining cells in kidney, some abnormal mitochondria, some cytoplasmic inclusions AAS
ENVIRONMENTAL EXPOSURE; LEAD; TERRESTRIAL; KIDNEYS; LIVER; HEART; BONES; BRAIN; MUSCLES; BIRDS; URBAN AREAS; RURAL AREAS Johnson, M.S.; Pluck, H.; Hutton, M.; Moore, G. 1982 Archives of Environmental Contamination and Toxicology 11:761-767				

Dove, turtle
STREPTOPELIA RISORIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10095 Kidney	a) 8 b) 7 c) 2 d) 7 Ingestion	a) 1.17-2.35 ug/g b) 633.29-2,384.52 ug/g c) 2.09-2.77 ug/g d) 473.39-4,171.77 ug/g Dry wt	a) 1.82 ug/g b) 1,462.79 ug/g c) 2.43 ug/g d) 1,864.36 ug/g Dry wt	a) Controls, received no shot, maintained at 21 deg C b) Received 4X110 mg Pb shot, 21 deg C c) Controls, no shot, 6 deg C d) Received 4X110 mg Pb shot, 6 deg C Experimental period of 9 d. Time varied in d) from 2 to 9 d. Virginia Some seizures, some deaths. Acid-fast intranuclear and intracytoplasmic inclusion bodies in proximal convoluted kidney cells. Inhibition of spermatogenesis. Liver lesions. AAS
10096 Liver	a) 8 b) 7 c) 3 d) 7 Ingestion	a) 0.18-0.43 ug/g b) 23.73-128.34 ug/g c) <0.10-0.38 ug/g d) 42.52-394.06 ug/g Dry wt	a) 0.31 ug/g b) 69.52 ug/g c) 0.19 ug/g d) 155.9 ug/g Dry wt	a) Controls, received no shot, maintained at 21 deg C b) Received 4X110 mg Pb shot, 21 deg C c) Controls, no shot, 6 deg C d) Received 4X110 mg Pb shot, 6 deg C Experimental period of 9 d. Time varied in d) from 2 to 9 d. Virginia Some seizures, some deaths. Acid-fast intranuclear and intracytoplasmic inclusion bodies in proximal convoluted kidney cells. Inhibition of spermatogenesis. Liver lesions. AAS

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Dove, turtle
STREPTOPELIA RISORIA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10097 Testis	a) 3 b) 2 Ingestion	a) 0.04-0.11 ug/g b) 1.84-3.56 ug/g Wet wt	a) 0.07 ug/g b) 2.70 ug/g Wet wt	a) Controls, received no shot, maintained at 6 deg C b) Received 4X110 mg Pb shot, 6 deg C Experimental period of 9 d. Study also of animals at 21 deg C, only histological data presented. The one value given for treated animal was 1.22 ug/g, wet wt. Virginia Some seizures, some deaths. Acid-fast intranuclear and intracytoplasmic inclusion bodies in proximal convoluted kidney cells. Inhibition of spermatogenesis. Liver lesions. ASV
DELIBERATE EXPOSURE; BIRDS; TERRESTRIAL; LEAD; LIVER; KIDNEYS; TESTES Kendall, R.J.; Veit, H.P.; Scanlon, P.F. 1981 Journal of Toxicology and Environmental Health 8:649-658				

Duck, mottled
ANAS FULVIGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10098 Bone	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 59.8+/-2.5 mg/kg b) 54.5+/-16.8 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
10099 Feathers	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 9.9+/-2.3 mg/kg b) 21.4+/-1.2 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.001$). 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Eagle, bald
HALIAEETUS LEUCOCEPHALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10100 Blood	1	Not applicable	0.06 ppm	Autopsy at death, several hr after treatment initiated. Clinical signs (recumbent, extensor rigidity, pupils unresponsive, no corneal reflex) indicated acute toxicity, possibly from secondary poisoning by famphur, not lead. Stomach contents contained feathers and bones of cowbirds and starlings with famphur level of 1.9 ppm, wet wt. Delaware
10101 Liver	1	Not applicable	0.23 ppm Wet wt	Autopsy at death, several hr after treatment initiated. Clinical signs (recumbent, extensor rigidity, pupils unresponsive, no corneal reflex) indicated acute toxicity, possibly from secondary poisoning by famphur, not lead. Stomach contents contained feathers and bones of cowbirds and starlings with famphur level of 1.9 ppm, wet wt. Delaware

BIRDS; ENVIRONMENTAL EXPOSURE; LEAD; BLOOD; LIVER; INSECTICIDES; DELAWARE
Franson, J.C.; Kolbe, E.J.; Carpenter, J.W. 1985 Journal of Wildlife Diseases 21(3):318-320

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
10102 Body		a) Not given b) Not given	a) 9.0 mg/g b) 13.3 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
10103 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Earthworm

Tissue	Cases Exposure Route	Range	Mean	General Information
10104 Body		Not given	15 mg/kg Dry wt	3 m from Rt 197, average daily traffic 10,000 vehicles, 3 m from pavement. Daily traffic figure for 1981. Part of a study on levels in starlings. Maryland, Prince George's County

ENVIRONMENTAL EXPOSURE; LEAD; STARLINGS; BIRDS; TERRESTRIAL; CARCASS; FEATHERS; BRAIN; BODY; GRUBS; EARTHWORMS; MARYLAND; AUTOMOTIVE; LAND POLLUTION; METALS

Grue, C.E.; Hoffman, D.J.; Beyer, W.N.; Franson, L.P. 1986 Environmental Pollution (Series A) 42:157-182

Tissue	Cases Exposure Route	Range	Mean	General Information
10105 Body	a) 30 b) 10 c) 10 d) 10 e) 10 f) 12	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 1221+/-91 ug/g b) 1191+/-52 ug/g c) 1312+/-134 ug/g d) 1459+/-241 ug/g e) 201+/-16 ug/g f) 338+/-39 ug/g Dry wt	a) Site 1, pasture b) Site 2, pasture c) Site 3, woodland d) Site 4, woodland e) Site 5, lower pasture f) Site 6, lower pasture Park Mine sites, abandoned about 100 yr ago. Total in soil ranged from 692+/-67 to 7689+/-351 ug/g, extractable from 102+/-4 to 258+/-37 ug/g. Wales, S., Llanbrisant AAS

ENVIRONMENTAL EXPOSURE; LEAD; CALCIUM; LEAD; BODY; EARTHWORMS; SOILS; LAND POLLUTION; MINING; WALES; BIOACCUMULATION; BIOLOGICAL MONITORING; TERRESTRIAL

Morris, B.; Morgan, A.J. 1986 Bulletin of Environmental Contamination and Toxicology 37:266-233

Tissue	Cases Exposure Route	Range	Mean	General Information
10106 Body, whole		Not given	0.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Earthworm (A. chlorotica)
ALLOLOBOPHORA CHLOROTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10107 Body		Not given	1.7 mg/kg	Collected 1981 from Patuxent Wildlife Research Center, separated from major highways. Part of a study on levels in starlings. Maryland, Prince George's County

ENVIRONMENTAL EXPOSURE; LEAD; STARLINGS; BIRDS; TERRESTRIAL; CARCASS; FEATHERS; BRAIN; BODY; GRUBS; EARTHWORMS; MARYLAND; AUTOMOTIVE; LAND POLLUTION; METALS

Grue, C.E.; Hoffman, D.J.; Beyer, W.N.; Franson, L.P. 1986 Environmental Pollution (Series A) 42:157-182

Earthworm (A. trapezoides)
ALLOLOBOPHORA TRAPEZOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10108 Body		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 3.6 mg/kg b) 34 mg/kg c) 3.8 mg/kg d) 190 mg/kg e) 400 mg/kg Dry wt	a) Control area, Patuxent Wildlife Research Center, separated from Rt 197 by forest b) Rt 197, average daily traffic 10,000 vehicles, 3 m from pavement c) 23 m from pavement d) Baltimore-Washington Parkway, average daily traffic 52,500 vehicles, 3 m from pavement e) 23 m from pavement Daily traffic figures for 1981. Part of a study on levels in starlings. Maryland, Prince George's County

ENVIRONMENTAL EXPOSURE; LEAD; STARLINGS; BIRDS; TERRESTRIAL; CARCASS; FEATHERS; BRAIN; BODY; GRUBS; EARTHWORMS; MARYLAND; AUTOMOTIVE; LAND POLLUTION; METALS

Grue, C.E.; Hoffman, D.J.; Beyer, W.N.; Franson, L.P. 1986 Environmental Pollution (Series A) 42:157-182

Earthworm (A. turgida)
APORRECTODEA TURGIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
10109 Body		a) Not given b) Not given c) Not given d) Not given	a) 3.2 mg/kg b) 58 mg/kg c) 3.8 mg/kg d) 1200 mg/kg Dry wt	a) Control area, Patuxent Wildlife Research Center, separated from Rt 197 by forest b) Rt 197, average daily traffic 10,000 vehicles, 3 m from pavement c) 23 m from pavement d) Baltimore-Washington Parkway, average daily traffic 52,500 vehicles, 23 m from pavement Part of a study on levels in starlings. Maryland, Prince George's County

ENVIRONMENTAL EXPOSURE; LEAD; STARLINGS; BIRDS; TERRESTRIAL; CARCASS; FEATHERS; BRAIN; BODY; GRUBS; EARTHWORMS; MARYLAND; AUTOMOTIVE; LAND POLLUTION; METALS

Grue, C.E.; Hoffman, D.J.; Beyer, W.N.; Franson, L.P. 1986 Environmental Pollution (Series A) 42:157-182

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Earthworm, red
LUMBRICUS RUBELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10110 Body	a) 2 b) 2 c) 3	a) Not applicable b) Not applicable c) not applicable	a) 2.54 ug/g b) 2.65 ug/g c) 8.75 ug/g Dry wt	a) Controls b) Field treated with fertilizer c) Field treated with municipal sludge, significantly higher 1 sampling on 5/26/81. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10111 Body		a) Not given b) Not given	a) 250 mg/kg b) 170 mg/kg Dry wt	a) Baltimore-Washington Parkway, average daily traffice 52,500 vehicles, 8 m from pavement b) 23 m from pavement Daily traffic figure for 1981. Part of study on levels in starlings. Maryland, Prince George's County

ENVIRONMENTAL EXPOSURE; LEAD; STARLINGS; BIRDS; TERRESTRIAL; CARCASS; FEATHERS; BRAIN; BODY; GRUBS; EARTHWORMS; MARYLAND; AUTOMOTIVE; LAND POLLUTION; METALS

Grue, C.E.; Hoffman, D.J.; Beyer, W.N.; Franson, L.P. 1986 Environmental Pollution (Series A) 42:157-182

Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
10112 Body	18	0.04-0.44 mg/kg Wet wt	0.17 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Lake IJssel, 1977-84. Netherlands DPASV

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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Eel, American
ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10113 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

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10114 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) 0.16+/-0.03 ug/g b) 0.09+/-0.01 ug/g c) 0.24+/-0.11 ug/g d) 0.11+/-0.05 ug/g e) 0.24+/-0.07 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 0.14+/-0.07 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
10115 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) 0.26 ug/g b) 0.20 ug/g c) 0.23 ug/g d) 0.19 ug/g e) 0.16 ug/g f) 1.13 ug/g g) 0.32 ug/g h) 0.40 ug/g i) 0.44 ug/g j) 0.31 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10116 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) 0.32+/-0.05 ug/g b) 0.17+/-0.05 ug/g c) 0.27+/-0.09 ug/g d) 0.14+/-0.06 ug/g e) 0.23+/-0.08 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 0.19+/-0.07 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10117 Brain	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.05+/-0.01 ug/g b) 0.10+/-0.03 ug/g c) 0.06+/-0.05 ug/g d) 0.05+/-0.05 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 0.08+/-0.05 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
10118 Feathers	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.08 ug/g b) 1.48 ug/g c) 1.51 ug/g d) 2.30 ug/g e) 0.37 ug/g f) 2.34 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10119 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) 0.09+/-0.01 ug/g b) 0.15+/-0.06 ug/g c) 0.56+/-0.19 ug/g d) 0.33+/-0.05 ug/g e) 1.44+/-0.42 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 0.30+/-0.20 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10120 Kidney	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.07+/-0.02 ug/g b) 0.38+/-0.12 ug/g c) 0.11+/-0.01 ug/g d) 0.08+/-0.05 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 0.18+/-0.09 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10121 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) 0.25+/-0.05 ug/g b) 0.08+/-0.02 ug/g c) 0.28+/-0.23 ug/g d) 0.10+/-0.01 ug/g e) 0.07+/-0.05 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 0.16+/-0.14 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
10122 Muscle	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 0.16 ug/g b) 0.15 ug/g c) 0.06 ug/g d) 0.05 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10123 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) 0.17+/-0.01 ug/g b) 0.07+/-0.03 ug/g c) 0.14+/-0.06 ug/g d) 0.06+/-0.01 ug/g e) 0.05+/-0.03 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 0.10+/-0.05 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10124 Skin	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.16+/-0.04 ug/g b) 0.50+/-0.18 ug/g c) 0.15+/-0.02 ug/g d) 0.08+/-0.08 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+/-0.10 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

Falcon, peregrine
FALCO PEREGRINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10125 Kidney	1	Not applicable	1.40 ppm	Necropsy. Blood lead estimated to be 0.14 ppm. Falcon fed mainly on urban rock doves (93%), 39/40 having elevated blood Pb levels with 11/40 having sublethal levels. Maryland, Baltimore Hemosiderin deposition in liver and kidneys. PSEUDOMONAS infection was cause of death. AAS
10126 Liver	1	Not applicable	0.74 ppm	Necropsy. Blood lead estimated to be 0.14 ppm. Falcon fed mainly on urban rock doves (93%), 39/40 having elevated blood Pb levels with 11/40 having sublethal levels. Maryland, Baltimore Hemosiderin deposition in liver and kidneys. PSEUDOMONAS infection was cause of death. AAS

BIRDS; LEAD; ENVIRONMENTAL EXPOSURE; MARYLAND; TERRESTRIAL; AUTOPSIES; LIVER; KIDNEYS; URBAN AREAS
DeMent, S.H.; Chisolm, J.J.; Barber, J.C.; Strandberg, J.D. 1986 Journal of Wildlife Diseases 22(2):238-244

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
10127 Body, whole	1830-3050	a) 0.10-6.73 ug/g b0 0.10-1.94 ug/g Wet wt	a) 0.19 ug/g b) 0.17 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
10128 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
10129 Muscle	a) 127 b) 80	a) Not detected-4.7 ug/g b) Not detected-3.50 ug/g	a) 1.52 ug/g b) 1.19 ug/g	a) Collected 1978 b) Collected 1979 Detection limit 0.5 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Fly, flesh
SARCOPHAGIDAE sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10130 Body		Not given	24 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, green
RANA CLAMITANS

Tissue	Cases Exposure Route	Range	Mean	General Information
10131 Body		a) 4.8-240 mg/kg b) 0.90-8.9 mg/kg Dry wt	a) Not given b) Not given	a) 13 highway drainage sites, avg traffic 4272-108,800 vehicles/d b) 4 control sites, ponds >/=9 individuals, total wt 7-125 g wet wt. Pb levels in tadpoles positively correlated with levels in sediment and with traffic volume. Maryland; Virginia AAS

FROGS; AQUATIC; LEAD; BODY; ENVIRONMENTAL EXPOSURE; AUTOMOTIVE; VIRGINIA; MARYLAND; JUVENILES; WATER POLLUTION
Birdsall, C.W.; Grue, C.E.; Anderson, A. 1986 Environmental Pollution (Series A) 40:233-247

Frog, wood
RANA SYLVATICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10132 Body, whole	4	6.4-14.0 mg/kg Dry wt	10.4 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Gadwall
ANAS STREPERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10133 Bone	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 8.8+/-0.9 mg/kg b) 14.0+/-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
10134 Feathers	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 0.3+/-0.2 mg/kg b) 0.0+/-0.0 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

Gar, spotted
LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10135 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) 2.60 ug/g b) 3.00 ug/g c) 2.20 ug/g d) 3.60 ug/g e) 2.60 ug/g f) 2.90 ug/g g) 3.40 ug/g h) 2.40 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Godwit, bar-tailed
LIMOSA LAPPONICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10136 Feathers	a) 19 b) 3	a) Not given b) Not given	a) 6.77+/-2.94 mg/kg b) 4.74+/-0.37 mg/kg	a) Schiermonnikoog b) Vlieland Location of collection, adults 0-3 wk after arrival. No. 8 primaries analyzed. Dutch Wadden Sea AAS
10137 Kidney	9	Not given	0.44+/-0.09 mg/kg Dry wt	Collected from Schiermonnikoog. Dutch Wadden Sea AAS

FEATHERS; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; CADMIUM; LEAD; BIOACCUMULATION; WATER POLLUTION
Goede, A.A.; de Voogt, P. 1985 Environmental Pollution (Series A) 37:311-322

Grackle, common
QUISCALUS QUISCULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10138 Body	a) 1 b) 1	a) Not applicable b) Not applicable	a) 5.5 mg/kg b) 8.5 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Grebe, black-necked
PODICEPS NIGRICOLLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10139 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) 0.53+/-0.50 ug/g b) 0.41+/-0.17 ug/g c) 0.46+/-0.38 ug/g d) 0.35+/-0.32 ug/g e) 0.54+/-0.41 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
10140 Brain	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) <0.10-1.52 ug/g c) <0.10-0.52 ug/g d) <0.10-0.91 ug/g e) <0.10-1.03 ug/g Dry wt	a) 0.64+/-0.60 ug/g b) Not given c) Not given d) Not given e) Not given 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
10141 Kidney	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) <0.10-0.79 ug/g d) <0.10-0.84 ug/g e) Not given Dry wt	a) 0.80+/-0.14 ug/g b) 0.27+/-0.09 ug/g c) Not given d) Not given e) 0.59+/-0.38 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
10142 Liver	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) <0.10-0.37 ug/g c) Not given d) <0.10-0.58 ug/g e) <0.10-0.83 ug/g Dry wt	a) 0.85+/-0.28 ug/g b) Not given c) 0.24+/-1.4 ug/g d) Not given e) Not given 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

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Grebe, black-necked
PODICEPS NIGRICOLLIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10143 Muscle	a) 6 b) 8 c) 6 d) 8 e) 5	a) Not given b) Not given c) <0.10-0.67 ug/g d) <0.10-2.06 ug/g e) <0.10-0.79 ug/g Dry wt	a) 0.83+/-0.31 ug/g b) 0.44+/-0.22 ug/g c) Not given d) Not given e) Not given 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
10144 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) <0.10-0.63 ug/g Dry wt	a) 0.69+/-0.68 ug/g b) 0.58+/-0.42 ug/g c) 0.28+/-0.44 ug/g d) 0.14+/-0.06 ug/g e) Not given 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

Grosbeak, rose-breasted
PHEUCTICUS LUDOVICIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10145 Body	2	6.5-9.0 mg/kg Dry wt	7.75 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Grub (Scarabaeidae)

Tissue	Cases Exposure Route	Range	Mean	General Information
10146 Body		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 13 mg/kg b) 48 mg/kg c) 20 mg/kg d) 850 mg/kg e) 140 mg/kg Dry wt	a) Control area, Patuxent Wildlife Research Center, separated from Rt 197 by forest b) Rt 197, average daily traffic 10,000 vehicles, 3 m from pavement c) 23 m from pavement d) Baltimore-Washington Parkway, average daily traffic 52,500 vehicles, 3 m from pavement e) 23 m from pavement Daily traffic figures for 1981. Part of a study on levels in starlings. Maryland, Prince George's County

ENVIRONMENTAL EXPOSURE; LEAD; STARLINGS; BIRDS; TERRESTRIAL; CARCASS; FEATHERS; BRAIN; BODY; GRUBS; EARTHWORMS; MARYLAND; AUTOMOTIVE; LAND POLLUTION; METALS

Grue, C.E.; Hoffman, D.J.; Beyer, W.N.; Franson, L.P. 1986 Environmental Pollution (Series A) 42:157-182

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
10147 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.
10148 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.
10149 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.
10150 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.
10151 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.

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Gull, laughing
LARUS ATRICILLA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10152 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

Hare, brown
LEPUS CAPENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10153 Liver	5	0.63-0.84 ppm Wet wt	0.75 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10154 Muscle	5	0.37-0.61 ppm Wet wt	0.52 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Hedgehog
ERINACEUS EUROPAEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10155 Liver	5	0.93-2.00 ppm Wet wt	1.46 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10156 Muscle	5	0.59-2.53 ppm Wet wt	1.38 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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

Heron, green-backed
BUTORIDES STRIATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10157 Liver	a) 18 b) 15 c) 20 d) 18 e) 19 f) 19	a) Not detected-0.26 ppm b) Not detected-1.47 ppm c) 0.15-0.97 ppm d) Not detected-0.16 ppm e) Not detected-0.21 ppm f) Not detected-0.25 ppm Wet wt	a) 0.09 ppm b) 0.47 ppm c) 0.55 ppm d) 0.07 ppm e) 0.08 ppm f) 0.07 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 AAS

Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10158 Body	14	0.01-0.27 mg/kg Wet wt	0.08 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978-84. Netherlands DPASV

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

Hog sucker, northern
HYPENTELIUM NIGRICANS

Tissue	Cases Exposure Route	Range	Mean	General Information
10159 Muscle	a) 10 b) 9 c) 6 d) 5 e) 12 f) 10 g) 6 h) 10 i) 10	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) 0.12+/-0.05 ppm b) 0.39+/-0.08 ppm c) 0.79+/-0.14 d) 0.80+/-0.06 ppm e) 0.31+/-0.06 ppm f) 0.04+/-0.01 ppm g) 0.06+/-0.02 ppm h) 0.06+/-0.01 ppm i) 0.07+/-0.05 ppm Wet wt	a) 24 mi upstream from ruptured Desloge tailings pond, Big River b) 7 mi c) 3 mi downstream d) 15 mi e) 40 mi f) Bourbeuse River g) Courtois Creek h) Indian Creek i) Black River In b), site is just downstream from Leadwood tailings pond. Missouri, Old and New Lead Belts and Tri-State Mining District

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION
Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745

Hornet

Tissue	Cases Exposure Route	Range	Mean	General Information
10160 Body		Not given	2.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10161 Adrenal gland	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 1.0+/-0.6 ug/g b) 0.9+/-0.1 ug/g c) 0 Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS
10162 Blood	a) 4 b) 4 Ingestion	a) 0.3-0.9 ug/mL b) 0.39->/=0.5 ug/mL Wet wt	a) Not given b) Not given	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d Levels approximately 5-6 wk after beginning of regimen until death. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS

HORSES; LEAD; CADMIUM; LIVER; KIDNEYS; RIBS; HAIR; HEART; BONES; MUSCLES; LUNGS; SPLEEN; BRAIN; ADRENAL GLANDS; THYROID GLANDS

Burrows, G.E.; Borchard, R.E. 1982 American Journal of Veterinary Research 43(12):2129-2133

Tissue	Cases Exposure Route	Range	Mean	General Information
10163 Bone	3	Not detected	Not applicable	Pleistocene (20-50,000 yr BP) specimens. Femur and two humeri, collected from caves, late 19th century. Detection limit 1.0 ug/g. Pb may be leached from bones during fossilization. France 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10164 Bone	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 63.2+/-18.4 ug/g b) 202+/-150 ug/g c) 38.8+/-4.5 ug/g Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Measured in ribs. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS

HORSES; LEAD; CADMIUM; LIVER; KIDNEYS; RIBS; HAIR; HEART; BONES; MUSCLES; LUNGS; SPLEEN; BRAIN; ADRENAL GLANDS; THYROID GLANDS
Burrows, G.E.; Borchard, R.E. 1982 American Journal of Veterinary Research 43(12):2129-2133

Tissue	Cases Exposure Route	Range	Mean	General Information
10165 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10166 Brain	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 2.6+/-0.4 ug/g b) 4.6+/-1.6 ug/g c) 0 Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS
10167 Hair	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 12.2+/-1.8 ug/g b) 13.4+/-0.4 ug/g c) 0 Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS

HORSES; LEAD; CADMIUM; LIVER; KIDNEYS; RIBS; HAIR; HEART; BONES; MUSCLES; LUNGS; SPLEEN; BRAIN; ADRENAL GLANDS; THYROID GLANDS
Burrows, G.E.; Borchard, R.E. 1982 American Journal of Veterinary Research 43(12):2129-2133

Tissue	Cases Exposure Route	Range	Mean	General Information
10168 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10169 Kidney	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 35.3+/-12.1 ug/g b) 21.7+/-3.4 ug/g c) 0 Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognised source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS

HORSES; LEAD; CADMIUM; LIVER; KIDNEYS; RIBS; HAIR; HEART; BONES; MUSCLES; LUNGS; SPLEEN; BRAIN; ADRENAL GLANDS; THYROID GLANDS
Burrows, G.E.; Borchard, R.E. 1982 American Journal of Veterinary Research 43(12):2129-2133

Tissue	Cases Exposure Route	Range	Mean	General Information
10170 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10171 Liver	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 50.2+/-19.1 ug/g b) 82.2+/-42 ug/g c) 0.4+/-0.2 ug/g Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognised source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS

HORSES; LEAD; CADMIUM; LIVER; KIDNEYS; RIBS; HAIR; HEART; BONES; MUSCLES; LUNGS; SPLEEN; BRAIN; ADRENAL GLANDS; THYROID GLANDS
Burrows, G.E.; Borchard, R.E. 1982 American Journal of Veterinary Research 43(12):2129-2133

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10172 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
10173 Lung	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 0.8+/-0.4 ug/g b) 6+/-3.2 ug/g c) 0 Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS
10174 Muscle	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 0 b) 0.3+/-0.3 ug/g c) 0 Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Horse
EQUUS CABALLUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10175 Spleen	a) 4 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 6+/-2.9 ug/g b) 17.7+/-14 ug/g c) 0 Wet wt	a) Fed contaminated hay (mean Pb 423 mg/kg hay, Cd 10.8 mg/kg, dose 7.2-7.6 mg Pb/kg body wt/d) grown near lead/zinc smelter and silver mine b) Fed control hay (no recognized source of heavy metal contamination) and given lead acetate trihydrate (dose 9.86-10.25 mg Pb/kg/d) c) Fed control hay Detection limits not given. Idaho, Coeur d'Alene River Basin Incoordination, paresis of lips and rectal sphincter, weight loss, CNS depression, anorexia, and regurgitation of ingesta through external nares with associated aspiration pneumonia. Death at 84-100 d (a) or 113-304 d (b) AAS
HORSES; LEAD; CADMIUM; LIVER; KIDNEYS; RIBS; HAIR; HEART; BONES; MUSCLES; LUNGS; SPLEEN; BRAIN; ADRENAL GLANDS; THYROID GLANDS Burrows, G.E.; Borchard, R.E. 1982 American Journal of Veterinary Research 43(12):2129-2133				

Insect

Tissue	Cases Exposure Route	Range	Mean	General Information
10176 Liver	a) 5 b) 7	a) 0.33-1.1 ppm b) Not detected-0.37 ppm Dry wt	a) 0.610 ppm b) 0.207 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 4/7 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 0.2 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Isopod
ASELLUS COMMUNIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10177 Body		a) 35.88+/-8.9-7.5+/-3.0 b) 40-260 ug/g c) 30-500 ug/g d) 20-60 ug/g e) 25-260 ug/g f) 40-90 ug/g g) 25-110 ug/g h) 0-20 ug/g i) 0-70 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 i) Not given	a) At collection and after clearing for 1 wk b) Animals maintained in water and sediment from Weston's Mill Pond (WMP), pH 5.5 c) In water and sediment from WMP, pH 4.5 d) In water only from WMP, pH 5.5 e) In water only from WMP, pH 4.5 f) In water and sediment from Delaware and Raritan Canal (DRC), pH 5.5 g) In water and sediment, DRC, pH 4.5 h) In water only, DRC, pH 5.5 i) Water only, DRC, pH 4.5 Pb in sediment from WMP 367 ug/g, from DRC 266 ug/g. Pb in water from WMP 10.2 ug/L, from DRC 5.1 ug/L. Collection on d 2, 5, 10, and 20 followed by 24-hr depuration prior to Pb determinations. b)-i) 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				

Kestrel, American
FALCO SPARVERIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10178 Brain	a) 10 b) 10 c) 10 d) 10 Ingestion	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) Not detected b) Not detected c) Not detected d) 2.5 ppm Wet wt	a) Controls b) 25 mg/kg c) 125 mg/kg d) 625 mg/kg After daily dose. Study also examined growth parameters vs dose. Pooled samples. Limit of detection 0.1 ppm. Maryland AAS

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Kestrel, American
FALCO SPARVERIUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10179 Kidney	a) 10 b) 10 c) 10 d) 10 Ingestion	a) 0.8-1.1 ppm b) 1.8-4.9 ppm c) 7.1-7.4 ppm d) Not applicable Wet wt	a) 0.9 ppm b) 3.0 ppm c) 7.2 ppm d) 15.5 ppm Wet wt	a) Controls b) 25 mg/kg c) 125 mg/kg d) 625 mg/kg After daily dose for 10 d. 60% survival at highest dose. Study also examined growth parameters vs dose. Limit of detection 0.1 ppm. Geometric means of two pooled values (range) or one pooled value at highest dose. Maryland AAS
10180 Liver	a) 10 b) 10 c) 10 d) 10 Ingestion	a) Not detected-0.2 ppm b) 0.9-2.1 ppm c) 2.6-4.7 ppm d) 2.4-12.7 ppm Wet wt	a) 0.1 ppm b) 1.4 ppm c) 3.5 ppm d) 5.5 ppm Wet wt	a) Controls b) 25 mg/kg c) 125 mg/kg d) 625 mg/kg After daily dose for 10 d. 60% survival at highest dose. Study also examined growth parameters vs dose. Limit of detection 0.1 ppm. Maryland AAS

BRAIN; LIVER; KIDNEYS; DELIBERATE EXPOSURE; BIRDS; TERRESTRIAL; MARYLAND; LEAD POISONING; METAL POISONING; METALS; LEAD; BIOACCUMULATION
Hoffman, D.J.; Franson, J.C.; Pattee, O.H.; Bunck, C.M.; Anderson, A. 1985 Archives of Environmental Contamination and Toxicology 14:89-94

Killifish
FUNDULUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10181 Body	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 10.1 ug/g b) 3.1 ug/g c) 1.3 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Knot
CALIDRIS CANUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10182 Feathers	a) 20 b) 20 c) 2	a) Not given b) Not given c) Not given	a) 2.19+/-0.75 mg/kg b) 7.02+/-1.79 mg/kg c) 5.33+/-1.02 mg/kg	a) Juveniles b) Adults, Scheirmonnikoog c) Adults, Vlieland Age and location of collection. Juvenile primaries and adult No. 8 primaries analyzed. Samples gathered 0-3 wk after arrival. Dutch Wadden Sea AAS

FEATHERS; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; CADMIUM; LEAD; BIOACCUMULATION; WATER POLLUTION
Goede, A.A.; de Voogt, P. 1985 Environmental Pollution (Series A) 37:311-322

Lion
PANTHERA LEO

Tissue	Cases Exposure Route	Range	Mean	General Information
10183 Bone	1	Not applicable	Not detected	Pleistocene (20,000-50,000 yr BP) metacarpal. Collected from cave, late 19th century. Detection limit 1.0 ug/g. Pb may be leached from bones during fossilization. France 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

Lobster

Tissue	Cases Exposure Route	Range	Mean	General Information
10184 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Lynx, pardel
LYNX PARDINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10185 Liver	5	0.76-0.80 ppm Wet wt	0.78 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10186 Muscle	5	0.52-1.76 ppm Wet wt	0.87 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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

Millipede
POLYDESMIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10187 Body		Not given	22 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Levels considered very high. 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C
Millipedes (unidentified)

Tissue	Cases Exposure Route	Range	Mean	General Information
10188 Body		Not given	19 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Levels considered very high. 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
10189 Bone	a) 129 b) 198	a) 0.00-21.15 ug/g b) 0.00-9.59 ug/g Dry wt	a) 1.87+/-0.23 ug/g b) 1.12+/-0.11 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 1.0 ug/g dry wt. Virginia AAS
10190 Kidney	a) 108 b) 178	a) 0.00-2.60 ug/g b) 0.00-5.22 ug/g Dry wt	a) 0.06+/-0.04 ug/g b) 0.23+/-0.06 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 1.0 ug/g dry wt. Virginia AAS
10191 Liver	a) 125 b) 199	a) 0.00-3.38 ug/g b) 0.00-12.74 ug/g Dry wt	a) 0.12+/-0.05 ug/g b) 0.18+/-0.08 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 1.0 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Moth
PAONIAS EXCAECATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10192 Body		Not given	3.3 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
10193 Body		a) Not given b) Not given	a) 1.0 mg/kg b) 1.9 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
10194 Body		Not given	1.3 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Moth, gypsy
PORTHETRIA DISPAR

Tissue	Cases Exposure Route	Range	Mean	General Information
10195 Body		Not given	a) 3.4 mg/kg b) 8.7 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
10196 Body		a) Not given b) Not given	a) 1.9 mg/kg b) 2.7 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
10197 Body		Not given	6.8 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Moth, tiger

Tissue	Cases Exposure Route	Range	Mean	General Information
10198 Body		Not given	2.0 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, white-footed
PEROMYSCUS LEUCOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10199 Body	a) 9 b) 9	a) Not given b) Not given	a) 7.4+/-1.6 mg/kg b) 17+/-2.7 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

Mouse, wood
APODEMUS SYLVATICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10200 Liver	6	1.53-1.89 ppm Wet wt	1.71 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilised sands of Donana National Park. Detection limit 0.02 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)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Mouse, wood
APODEMUS SYLVATICUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10201 Muscle	6	1.15-12.3 ppm Wet wt	3.77 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10202 Liver	a) 10 b) 5 c) 1 d) 2 e) 6 f) 4	a) Not detected-0.32 ppm b) 0.29-1.60 ppm c) Not applicable d) Not detected-0.31 ppm e) Not detected-0.14 ppm f) Not detected-0.53 ppm Wet wt	a) 0.16 ppm b) 0.69 ppm c) 0.64 ppm d) 0.17 ppm e) 0.07 ppm f) 0.26 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 AAS

Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Mussel
MYTILUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10203 Body	a) 405 b) 630 c) 495 d) 150	a) 2.13+/-1.17-2.80+/-0.76 ug/g b) 1.70+/-0.15-8.70+/-0.17 ug/g c) 1.54+/-0.83-5.59+/-1.55 ug/g d) 0.78+/-0.39-1.01+/-0.35 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
10204 Body		a) 2.1-7.4 mg/kg b) 2.3-12.9 mg/kg c) 2.8-9.7 mg/kg d) 2.2-5.9 mg/kg e) 2.9-8.4 mg/kg f) 1.3-3.5 mg/kg g) 3.2-10.9 mg/kg 2.5-6.2 mg/kg Dry 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) 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 Waddenzee, coastal North Sea and Ems' estuaries, Western and Eastern Scheldt. Range of medians was 3.1-6.7 mg/kg. Netherlands ASV

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
10205 Body	21	0.29-1.1 mg/kg Wet wt	0.72 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Eastern Scheldt, 1977-84. Netherlands DPASV

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

Lead

7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10206 Gills	a) 15 b) 14	a) 5.7-2.6 ug/g b) 55-993 ug/g Dry wt	a) 14+/-7 ug/g b) 552+/-293 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. Canada, British Columbia X-ray spectrom
10207 Viscera	a) 15 b) 14	a) <1-49 ug/g b) 30-1064 ug/g Dry wt	a) 15+/-14 ug/g b) 413+/-289 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
10208 Body	1	Not applicable	6.8 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Otter
LUTRA LUTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
10209 Liver	5	0.69-0.78 ppm Wet wt	0.73 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10210 Muscle	5	0.51-0.80 ppm Wet wt	0.64 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10211 Body	2	11-25 mg/kg Dry wt	18 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

Oyster

Tissue	Cases Exposure Route	Range	Mean	General Information
10212 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

Lead

7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10213 Body		a) 0.3+/-0.6-0.9+/-9 mg/kg b) Not detected-1.9+/-0.8 mg/kg c) 0.3+/-0.6-0.9+/-0.9 mg/kg d) 0.5+/-0.9-3.7+/-5.3 mg/kg e) 0.3+/-0.6-1.6+/-1.9 mg/kg f) 0.3+/-0.6-1.0+/-1.8 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
10214 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
10215 Body	426 (approx)	0.01+/-0.01-0.53+/-0.30 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

Lead

7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Oyster, Pacific
CRASSOSTREA GIGAS

Tissue	Cases Exposure Route	Range	Mean	General Information
10216 Body	a) 328 b) 226	a) <0.1-0.4 ug/g b) <0.1-0.4 ug/g Wet wt	a) 0.21 ug/g b) 0.23 ug/g Wet wt	a) Collected live from 8 sites in bay. 1 groups with <0.01 not included in mean b) Collected from 10 stalls in Lau Fau Shan Market. 1 group with <0.01 not included in mean Range 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
10217 Bone	a) 10 b) 10	a) Not given b) Not given	a) 7.44+/-2.52 ppm b) 6.84+/-4.28 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
10218 Feathers	10	Not given	0.902+/-0.846 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=0.21 ppm wet wt. California AAS
10219 Kidney	10	0.58-1.6 ppm Dry wt	Not given	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
10220 Liver	10	0.74-0.89 ppm Dry wt	Not given	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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
10221 Body	a) 19 b) 3	a) 0.01-0.26 mg/kg b) 0.02-0.05 mg/kg Wet wt	a) 0.08 mg/kg b) 0.03 mg/kg Wet wt	a) Collected from Lake IJssel, 1977-84 b) Collected from Hollands Diep, 1982-84 Edible parts, mixed samples weighing about 20 kg. Netherlands DPASV

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
10222 Bone	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 31.4 mg/kg b) 19.2+/-2.6 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10223 Feathers	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 3.4+/-0.5 mg/kg b) 2.7+/-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

Plaice
PLEURONECTES PLATESSA

Tissue	Cases Exposure Route	Range	Mean	General Information
10224 Body	15	0.02-0.24 mg/kg Wet wt	0.08 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978-83. Netherlands DPASV

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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Plaice
PLEURONECTES PLATESSA

Tissue	Cases Exposure Route	Range	Mean	General Information
10225 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

Rabbit
ORYCTOLAGUS CUNICULUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10226 Liver	5	1.25-1.43 ppm Wet wt	1.34 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10227 Muscle	5	0.50-2.46 ppm Wet wt	0.78 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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

Lead

7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10228 Blood, whole		a) Not given b) Not given c) Not given d) Not given	a) 1200+/-642 ug/100 g b) 1150+/-374 ug/100 g c) 888+/-368 ug/100 g d) 1790+/-865 ug/100 g Wet wt	a) 1% (W/V) lead acetate i.p., administered 1 ml/wkX6 wk. 8 samples b) 2 ml/wkX6 wk. 8 samples c) 1 ml/wkX8 wk. 8 samples d) 2 ml/wkX8 wk. 9 samples 3 d after last dose. Levels in controls 1.16+/-1.15 ug/100 mg at wk 6 1.01+/-0.40 ug/100 mg at wk 8. c) and d) significantly different, $p<0.05$. Reduced body wt gain. Reduced motor nerve conduction velocity. AAS
10229 Nerve	Injection	a) Not given b) Not given c) Not given d) Not given	a) 140+/-36.0 ug/100 g b) 196+/-53.9 ug/100 g c) 148+/-34.5 ug/100 g d) 278+/-89.8 ug/100 g Wet wt	a) 1% (W/V) lead acetate i.p., administered 1 ml/wkX6 wk. 8 samples b) 2 ml/wkX6 wk. 7 samples c) 1 ml/wkX8 wk. 9 samples d) 2 ml/wkX8 wk. 9 samples Sciatic nerve 3 d after last dose. Levels in controls 14.7+/-4.57 at wk 6, 11.2+/-6.20 at wk 8. Levels of all dosage groups significantly different from each other at 6 and 8 wk. Reduced body wt gain. Reduced motor nerve conduction velocity. AAS

BLOOD; NERVES; DELIBERATE EXPOSURE; LEAD; BIOACCUMULATION; DOSE; RATS; TERRESTRIAL

Maehara, N.; Uchino, E.; Terayama, K.; Ohno, H.; Yamamura, K. 1986 Bulletin of Environmental Contamination and Toxicology 37:47-52

Rat, brown
RATTUS NORVERGICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10230 Liver	5	1.10-1.19 ppm Wet wt	1.15 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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
10231 Muscle	5	0.86-2.46 ppm Wet wt	1.45 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.02 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Redshank, Icelandic
TRINGA TOTANUS ROBUSTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10232 Feathers	a) 10 b) 3	a) Not given b) Not given	a) 7.04+/-3.77 mg/kg b) 5.52+/-3.42 mg/kg	a) Schiermonnikoog b) Vlieland Location of collection, adults 0-3 wk after arrival. No. 8 primaries analyzed. Dutch Wadden Sea AAS
10233 Kidney	3	Not given	1.52+/-0.27 mg/kg	Collected at Schiermonnikoog. Dutch Wadden Sea AAS

FEATHERS; KIDNEYS; WATERFOWL; AQUATIC; ENVIRONMENTAL EXPOSURE; NETHERLANDS; METALS; CADMIUM; LEAD; BIOACCUMULATION; WATER POLLUTION
Goede, A.A.; de Voogt, P. 1985 Environmental Pollution (Series A) 37:311-322

Robin, American
TURDUS MIGRATORIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10234 Body	6	15-240 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

Salamander, red-backed
PLETHODON CINEREUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10235 Body, whole	a) 6 b) 1	a) Not given b) Not applicable	a) 28 mg/kg b) 11 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Salamander, slimy
PLETHODON GLUTINOSUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10236 Body, whole	a) 2 b) 2	a) Not given b) 11-13 mg/kg Dry wt	a) 19 mg/kg b) 12 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
10237 Gills	38	a) Not given b) Not given c) Not given d) Not given	a) 2.1 ug/g b) 1.5 ug/g c) 0.89 ug/g d) 4.0 ug/g Dry wt	a) All sites b) Off Navy Island c) Georges Bank d) Browns Bank Size 70-126 mm. Canada, New Brunswick AAS
10238 Mantle	38	Not given	0.9 ug/g Dry wt	From Georges Bank, Browns Bank, and off Navy Island near St. Andrews. Size 70-126 mm. Canada, New Brunswick AAS
10239 Muscle	38	a) 0.1-2.2 ug/g b) Not given c) Not given d) Not given Dry wt	a) 0.6 ug/g b) 0.2 ug/g c) 0.6 ug/g d) 0.6 ug/g Dry wt	a) All sites b) Off Navy Island c) Georges Bank d) Browns 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Scallop
PLACOPECTEN MAGELLANICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10240 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
10241 Viscera	38	a) Not given b) Not given c) Not given d) Not given	a) 2.0 ug/g b) 2.4 ug/g c) 0.96 ug/g d) 3.4 ug/g Dry wt	a) All sites b) Off Navy Island c) Georges Bank d) Browns 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

Scaup, lesser
AYTHYA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10242 Bone	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 5.8+/-0.7 mg/kg b) 8.8+/-3.0 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10243 Feathers	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 21.5+/-12.0 mg/kg b) 35.1+/-15.7 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Seal, harbor
PHOCA VITULINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10244 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.
10245 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

Shad, American
ALOSA SAPIDISSIMA

Tissue	Cases Exposure Route	Range	Mean	General Information
10246 Gonads	5	Not detected	Not detected	Collected May, 1979, waters of Hartford County. Detection limit 0.5. 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
10247 Muscle	5	Not detected-0.6 ug/g	Not given	Collected May, 1979, waters of Hartford County. Detection limit 0.5. 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10248 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) 2.06 ug/g b) 3.16 ug/g c) 2.40 ug/g d) 3.43 ug/g e) 2.50 ug/g f) 1.56 ug/g g) 2.70 ug/g h) 2.26 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				

Shearwater, Cory's
CALONECTRIS DIOMEDEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10249 Adipose	a) 5 b) 5 c) 5	a) Not given b) Not given c) Not given	a) 0.42+/-0.11 ug/g b) 0.31+/-0.19 ug/g c) 0.35+/-0.27 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
10250 Brain	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 1.07+/-0.50 ug/g b) 1.56+/-1.15 ug/g c) 0.89+/-0.58 ug/g d) 0.95+/-0.72 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)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Shearwater, Cory's
CALONECTRIS DIOMEDEA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10251 Eggs	a) 20 b) 10 d) 11 d) 2	a) Not given b) Not given c) Not given d) Not given	a) <0.30 ug/g b) <0.30 ug/g c) <0.30 ug/g d) <0.30 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. Detection limit 0.03 ug/g. Mediterranean Sea; Atlantic Ocean Shells thinner in Mediterranean samples AAS
10252 Kidney	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 1.08+/-0.75 ug/g b) 0.48+/-0.39 ug/g c) 0.98+/-0.60 ug/g d) 0.51+/-0.28 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
10253 Liver	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.97+/-0.66 ug/g b) 0.60+/-0.38 ug/g c) 0.81+/-0.48 ug/g d) 0.76+/-0.47 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
10254 Muscle	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.84+/-0.71 ug/g b) 0.61+/-0.19 ug/g c) 0.56+/-0.31 ug/g d) 0.87+/-0.34 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
10255 Uropygial gland	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 1.10+/-0.49 ug/g b) 0.67+/-0.20 ug/g c) 0.49+/-0.20 ug/g d) 0.56+/-0.44 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10256 Blood	a) 6 b) 6 c) 6 d) 6 e) 6 f) 6 g) 6 h) 6 i) 6 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) 1.03 umol/L b) 0.47 umol/L c) 0.22 umol/L d) 0.87 umol/L e) 0.53 umol/L f) 0.14 umol/L g) 0.82 umol/L h) 0.53 umol/L i) 0.34 umol/L	a) At 12 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 AAS

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
10257 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 21+/-3 ug/g b) 15+/-3 ug/g c) 18+/-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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10258 Bone	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) 231 umol/kg b) 36 umol/kg c) 12 umol/kg d) 289 umol/kg e) 92 umol/kg f) 45 umol/kg g) 316 umol/kg h) 117 umol/kg i) 34 umol/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. Rib. Australia, South Australia, Port Pirie AAS

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
10259 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 3.6+/-0.4 ug/g b) 1.9+/-0.4 ug/g c) 3.7+/-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

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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10260 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) 272.0 umol/kg b) 60.0 umol/kg c) 16.5 umol/kg d) 134.1 umol/kg e) 66.7 umol/kg f) 25.1 umol/kg g) 352.7 umol/kg h) 62.4 umol/kg i) 22.3 umol/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 AAS

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
10261 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 2.1+/-0.4 ug/g b) 2.9+/-0.4 ug/g c) 4.0+/-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

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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10262 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) 20.1 umol/kg b) 6.5 umol/kg c) 3.1 umol/kg d) 29.5 umol/kg e) 23.2 umol/kg f) 6.2 umol/kg g) 34.1 umol/kg h) 18.6 umol/kg i) 4.5 umol/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 AAS

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
10263 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
10264 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 4.1+/-0.4 ug/g b) 4.0+/-0.4 ug/g c) 4.8+/-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

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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Shoveler
ANAS CLYPEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10265 Bone	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 9.8+/-0.4 mg/kg b) 9.2+/-1.3 mg/kg Wet wt S.E.	a) Without ingested shot b) With of ingested shot in gizzard No significant difference. Texas, Chambers County ES
10266 Feathers	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 0.2+/-0.1 mg/kg b) 2.5+/-2.0 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

Shrew, short-tailed
BLARINA BREVICAUDA

Tissue	Cases Exposure Route	Range	Mean	General Information
10267 Body	a) 13 b) 7	a) Not given b) Not given	a) 18+/-1.4 mg/kg b) 109+/-11 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. Mean level in b) highest of any vertebrate group. 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
CRANGON CRANGON

Tissue	Cases Exposure Route	Range	Mean	General Information
10268 Body	20	0.05-0.34 mg/kg Wet wt	0.15 mg/kg Wet wt	Analyzed cooked and unpeeled. Mixed samples weighing about 20 kg. Collected from Western Wadden Sea, 1977-84. Netherlands DPASV

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

Lead

7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Shrimp
CRANGON CRANGON

Tissue	Cases Exposure Route	Range	Mean	General Information
10269 Muscle	a) 30 b) 30 c) 30 d) 30	a) Not given b) Not given c) Not given d) Not given	a) 0.07+/-0.02 ug/g b) 0.09+/-0.04 ug/g c) 0.11+/-0.03 ug/g d) 0.03+/-0.01 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

Slug
PHILOMYCUS CAROLINIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10270 Body, whole		Not given	53 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Levels considered high. Slugs not 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Snake, northern water
NERODIA SIPEDON

Tissue	Cases Exposure Route	Range	Mean	General Information
10271 Body	a) 15 b) 15 c) 12 d) 11 e) 10 f) 15	a) Not detected-0.64 ppm b) 1.60-13.0 ppm c) 2.40-14.1 ppm d) Not detected-3.90 ppm e) 0.20-3.80 ppm f) Not detected-0.55 ppm Wet wt	a) 0.19 ppm b) 6.07 ppm c) 7.52 ppm d) 1.21 ppm e) 0.97 ppm f) 0.15 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 AAS
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Sole
SOLEA SOLEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10272 Body	22	0.02-0.26 mg/kg Wet wt	0.07 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1977-84. Netherlands DPASV
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
10273 Body	1	Not applicable	25 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10274 Body		0-40 ug/g Dry wt	11.0 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
10275 Body		0-50 ug/g Dry wt	12.0 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10276 Brain	a) 8 b) 11 c) 10 d) 10 e) 9 e) 9 Ingestion	a) 0.57-0.93 mg/kg b) <0.50-0.95 mg/kg c) <0.50-0.93 mg/kg d) <0.50-0.58 mg/kg e) 0.69-1.3 mg/kg f) <0.50-1.5 mg/kg Wet wt	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 18 d old nestlings, control area, Patuxent Wildlife Research Center, separated from Rt 197 by forest b) Adults, control area c) 18 d old nestlings, verge on Rt 197, average daily traffic 10,800 vehicles d) Adults as in c) e) 18 d old nestlings, median on Baltimore-Washington Parkway, average daily traffic 52,500 vehicles Daily traffic figures for 1981. Detection limit 0.7 mg/kg. Maryland, Prince George's County ALAD activity, hemoglobin levels, hematocrits depressed, primarily in nestlings. Brain wt low in Parkway nestlings.
10277 Carcass		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.78 mg/kg b) 3.1 mg/kg c) 0.67 mg/kg d) 3.0 mg/kg e) 4.0 mg/kg f) 9.6 mg/kg Geometric Dry wt	a) 18 d old nestlings, control area, Patuxent Wildlife Research Center, separated from Rt 197 by forest b) Adults, control area c) 18 d old nestlings, verge on Rt 197, average daily traffic 10,800 vehicles d) Adults as in c) e) 18 d old nestlings, median on Baltimore-Washington Parkway, average daily traffic 52,500 vehicles Daily traffic figures for 1981. Detection limit 0.1 mg/kg. Maryland, Prince George's County ALAD activity, hemoglobin levels, hematocrits depressed, primarily in nestlings. Brain wt low in Parkway nestlings.
10278 Feathers	Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 2.5 mg/kg b) 14 mg/kg c) 1.4 mg/kg d) 20 mg/kg e) 6.8 mg/kg f) 52 mg/kg Geometric Dry wt	a) 18 d old nestlings, control area, Patuxent Wildlife Research Center, separated from Rt 197 by forest b) Adults, control area c) 18 d old nestlings, verge on Rt 197, average daily traffic 10,800 vehicles d) Adults as in c) e) 18 d old nestlings, median on Baltimore-Washington Parkway, average daily traffic 52,500 vehicles Daily traffic figures for 1981. Detection limit 0.1 mg/kg. Maryland, Prince George's County ALAD activity, hemoglobin levels, hematocrits depressed, primarily in nestlings. Brain wt low in Parkway nestlings.

ENVIRONMENTAL EXPOSURE; LEAD; STARLINGS; BIRDS; TERRESTRIAL; CARCASS; FEATHERS; BRAIN; BODY; GRUBS; EARTHWORMS; MARYLAND; AUTOMOTIVE; LAND POLLUTION; METALS

Grue, C.E.; Hoffman, D.J.; Beyer, W.N.; Franson, L.P. 1986 Environmental Pollution (Series A) 42:157-182

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Stickleback
GASTEROSTEUS ACULEATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10279 Body		Not given	1 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
10280 Liver	a) 5 b) 5 c) 5	a) Not detected-0.8 ppm b) 0.1-0.5 ppm c) Not detected-0.2 ppm Wet wt	a) 0.2 ppm b) 0.1 ppm c) 0.03 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 2.0 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sucker, black redhorse
MOXOSTOMA DUQUESNEI

Tissue	Cases Exposure Route	Range	Mean	General Information
10281 Muscle	a) 20 b) 15 c) 13 d) 10 e) 10 f) 10 g) 10 h) 10 i) 4 j) 4 k) 4 l) 10	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) 0.06+/-0.01 ppm b) 0.31+/-0.05 ppm c) 0.62+/-0.06 ppm d) 0.63+/-0.11 ppm e) 0.37+/-0.03 ppm f) 0.43+/-0.03 ppm g) 0.27+/-0.07 ppm h) 0.13+/-0.02 ppm i) 0.09+/-0.02 ppm j) 0.04+/-0.006 ppm k) 0.04+/-0.01 ppm l) 0.05+/-0.01 ppm Wet wt	a) 24 mi upstream from ruptured Desloge tailings pond, Big River b) 7 mi c) 3 mi downstream d) 15 mi e) 40 mi f) 58 mi g) 85 mi h) 95 mi i) Courtois Creek j) Shoal Creek control k) Center Creek l) Shoal Creek In b), site is just downstream from Leadwood tailings pond. Missouri, Old and New Lead Belts and Tri-State Mining District

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION
Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745

Sucker, golden redhorse
MOXOSTOMA ERYTHRURUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10282 Muscle	a) 9 b) 20 c) 4	a) Not given b) Not given c) Not given	a) 0.12+/-0.07 ppm b) 0.88+/-0.07 ppm c) 0.42+/-0.13 ppm Wet wt	a) 24 mi upstream from ruptured Desloge tailings pond, Big River c) 3 mi downstream c) 40 mi downstream Missouri, Old and New Lead Belts and Tri-State Mining District

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION
Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745

Sucker, shorthead redhorse
MOXOSTOMA MACROLEPIDOTUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10283 Muscle	a) 10 b) 6	a) Not given b) Not given	a) 0.03+/-0.009 ppm b) 0.11+/-0.03 ppm Wet wt	a) Spring River b) Center Creek Missouri, Old and New Lead Belts and Tri-State Mining District

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION
Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sunfish
LEPOMIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10284 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 5.50 ug/g b) 1.80 ug/g c) 2.50 ug/g d) 2.20 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, longear
LEPOMIS MEGALOTIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10285 Muscle	a) 10 b) 15 c) 10 d) 10 e) 10 f) 10 g) 10 h) 10 i) 4 j) 4 k) 4 l) 10 m) 10 n) 10 o) 10	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 n) Not given o) Not given	a) 0.09+/-0.03 b) 0.14+/-0.04 c) 0.39+/-0.07 d) 0.35+/-0.06 e) 0.18+/-0.05 f) 0.27+/-0.05 g) 0.16+/-0.03 h) 0.05+/-0.008 i) 0.4+/-0.01 j) 0.08+/-0.04 k) 0.04+/-0.02 l) 0.08+/-0.02 m) 0.07+/-0.02 n) 0.06+/-0.02 o) 0.05+/-0.009 ppm Wet wt	a) 24 mi upstream from ruptured Desloge tailings pond, Big River b) 7 mi c) 3 mi downstream d) 15 mi e) 40 mi f) 58 mi g) 85 mi h) 95 mi i) Huzzah Creek j) Indian Creek k) Black River l) Shoal Creek control m) Spring River n) Center Creek o) Shoal Creek In b), site is just downstream from Leadwood tailings pond. Missouri, Old and New Lead Belts and Tri-State Mining District

MUSCLES; FISHES; AQUATIC; ENVIRONMENTAL EXPOSURE; MISSOURI; ADULTS; COMPARATIVE EVALUATIONS; LEAD; MINING; FOOD CONTAMINATION; WATER POLLUTION; BIOCONCENTRATION
Czarnezki, J.M. 1985 Bulletin of Environmental Contamination and Toxicology 34:736-745

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Sunfish, redbreast
LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10286 Muscle	2	0.001-0.002 mg/kg Wet wt	0.002 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
10287 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				

Swallow, northern rough-winged
STELGIDOPTERYX SERRIPENNIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10288 Body	a) 18 b) 12 c) 8 d) 20 e) 19 f) 8	a) Not detected-5.40 ppm b) Not detected-14.7 ppm c) Not detected-1.80 ppm d) Not detected-61.2 ppm e) Not detected-5.90 ppm f) Not detected-1.40 ppm Wet wt	a) 0.51 ppm b) 1.86 ppm c) 0.44 ppm d) 2.39 ppm e) 1.11 ppm f) 0.23 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 AAS
Niethammer, K.R.; Atkinson, R.D.; Baskett, T.S.; Samson, F.B. 1985				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Tanager, scarlet
PIRANGA OLIVACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10289 Body	2	8.4-9.1 mg/kg Dry wt	8.75 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
10290 Bone	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 8.4+/-1.0 mg/kg b) 11.1+/-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
10291 Feathers	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 3.9+/-0.4 mg/kg b) 3.4+/-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

Tissue	Cases Exposure Route	Range	Mean	General Information
10292 Liver	a) 4 b) 5	a) Not detected b) Not detected-0.14 ppm Wet wt	a) Not detected b) 0.03 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 2.0 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Thousand-legs (millipede)
SPIROBILIDA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10293 Body		Not given	27 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Levels considered very high. 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
10294 Body	1	Not applicable	73 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				

Thrush, wood
HYLOCICHLA MUSTELINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10295 Body	a) 5 b) 2	a) 14-24 mg/kg b) 34-49 mg/kg Dry wt	a) Not given b) 41.5 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				

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Toad, American
BUFO AMERICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10296 Body, whole	5	7.1-15 mg/kg Dry wt	10.9 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

Toad, Woodhouse's
BUFO WOODHOUSEI

Tissue	Cases Exposure Route	Range	Mean	General Information
10297 Body, whole	3	5.7-13.0 mg/kg Dry wt	8.9 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
10298 Body	1	Not applicable	11 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Trout, cutthroat
SALMO CLARKI

Tissue	Cases Exposure Route	Range	Mean	General Information
10299 Muscle		Not given	1 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

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
10300 Liver		Not given	1 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10301 Liver		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) <0.2 ug/g b) 0.75 ug/g c) 3.2 ug/g d) 17 ug/g e) <0.2 ug/g f) <0.2 ug/g g) 1.0 ug/g h) 1.5 ug/g Wet wt	a) Exposed 30 d to <1 ug/L b) 10 ug/L c) 75 ug/L d) 300 ug/L e) After 49 d recovery in Pb-free water from exposure to <1 ug/L f) 10 ug/L g) 75 ug/L h) 300 ug/L Values estimated from bar graphs. 10 animals/group in a)-d) and 9-11 in e)-f). Sweden Disturbed ion regulation, impaired glucose homeostasis AAS

ENVIRONMENTAL EXPOSURE; LEAD; FISHES; LIVER; MUSCLES; AQUATIC; WATER POLLUTION; BIOACCUMULATION; SWEDEN; METALS

Haux, C.; Larsson, A. 1982 Ecotoxicology and Environmental Safety 6:28-34

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
10302 Muscle		Not given	1 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10303 Muscle		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) 0.2 ug/g b) 0.1 ug/g c) 0.5 ug/g d) 1.3 ug/g e) 0.6 ug/g f) 0.5 ug/g g) 1.0 ug/g h) 1.1 ug/g Wet wt	a) Exposed 30 d to <1 ug/L b) 10 ug/L c) 75 ug/L d) 300 ug/L e) After 49 d recovery in Pb-free water from exposure to <1 ug/L f) 10 ug/L g) 75 ug/L h) 300 ug/L Values estimated from bar graphs. 10 animals/group in a)-d) and 9-11 in e)-f). Sweden Disturbed ion regulation, impaired glucose homeostasis AAS

ENVIRONMENTAL EXPOSURE; LEAD; FISHES; LIVER; MUSCLES; AQUATIC; WATER POLLUTION; BIOACCUMULATION; SWEDEN; METALS

Haux, C.; Larsson, A. 1982 Ecotoxicology and Environmental Safety 6:28-34

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10304 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) 0.07+/-0.05 ppm b) 0.16+/-0.14 ppm c) 0.19+/-0.24 ppm d) Not detected e) 0.10+/-0.05 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 41%. Detection limit not given. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ AAS
10305 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) 0.07+/-0.06 ppm b) Not detected c) Not detected d) Not detected e) 0.12+/-0.20 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 6%. Detection limit not given. 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
10306 Body		a) Not given b) Not given	a) 1.5 mg/kg b) 2.1 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Underwing, copper
AMPHIPYRA PYRAMIDOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10307 Body		a) Not given b) Not given	a) 1.7 mg/kg b) 4.8 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

Vole, pine
PITYMYS PINETORUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10308 Body		Not given	60.3+/-1.9 ppm Dry wt	Captured in 1982-83 from orchards treated with Pb-arsenate. Animals used in diets to determine uptake of Pb by kittens. New York, Hudson Valley, New Platz Stripping voltammetry

BODY; KIDNEYS; LIVER; BONES; VOLES; CATS; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; NEW YORK; JUVENILES; LEAD POISONING; LEAD; BIOACCUMULATION; LAND POLLUTION; INSECTICIDES
Gilmartin, J.E.; Alo, D.K.; Richmond, M.E.; Bache, C.A.; Lisk, D.J. 1985 Bulletin of Environmental Contamination and Toxicology 34:291-294

Warbler

Tissue	Cases Exposure Route	Range	Mean	General Information
10309 Body	1	Not applicable	14 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Warbler, black-and-white
MNIOTILTA VARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10310 Body	a) 1 b) 1	a) Not applicable b) Not applicable	a) 9.8 mg/kg b) 15 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

Warbler, yellow-throated
DENDROICA DOMINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10311 Body	1	Not applicable	77 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

Weevil, waterhyacinth
NEOCHETINA EICHHORNIAE

Tissue	Cases Exposure Route	Range	Mean	General Information
10312 Body	a) 50 b) 50 c) 50 Ingestion	a) Not given b) Not given c) Not given	a) 0.00 ug/g b) 0.00 ug/g c) 44.45 ug/g Dry wt	a) Controls, no Pb in water, leaves b) 1.0 ug/L, 5.89 ug/g in water and leaves, respectively c) 5.0 ug/L, 9.84 ug/g in water, leaves Animals from Camp's Canal and River Styx fed waterhyacinth leaves grown with or without metal added to medium. Florida, Alachua County 10- and 20-day mortalities for each group were: 0.8 and 2.8, 0.6 and 2.4, 0 and 0.8 AAS

DELIBERATE EXPOSURE; AQUATIC; BODY; WEEVILS; LEAD; CADMIUM; COPPER; FLORIDA; WATER POLLUTION; VEGETATION; METALS; INGESTION; INSECTS
Kay, S.H.; Haller, W.T. 1986 Bulletin of Environmental Contamination and Toxicology 37:239-245

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Whitefish
COREGONUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10313 Liver	a) 13 b) 14	a) Not given b) Not given	a) 7.1+/-0.9 ug/g b) 6.4+/-1.3 ug/g Dry wt	a) Laisan Lake, collected about 3 km downstream of drainage water release from mine b) Aisjaure, near discharge of wastewater from refinery. Juvenile fish. Sweden, north Decreased blood ALA-D activity, increased blood glucose, decreased plasma sodium AAS
ENVIRONMENTAL EXPOSURE; SWEDEN; FISHES; LEAD; MINING; WATER POLLUTION; AQUATIC Haux, C.; Larsson, A.; Lithner, G.; Sjobeck, M.-L. 1986 Environmental Toxicology and Chemistry 5:283-288				

Woodchuck
MARMOTA MOMAX

Tissue	Cases Exposure Route	Range	Mean	General Information
10314 Blood	a) 6 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 0.09+/-0.02 ppm b) 2.17+/-0.13 ppm c) 0.31+/-0.05 ppm S.E. Dry wt	a) Controls, fed crown vetch grown 300 m from road b) 1979, fed vetch from near highway, before unleaded gas widely used c) 1985, vetch from near highway, unleaded gas were commonly used Crops fed as 50% dry wt of diet for 58 d. Respective levels in crops were 0.74, 50.65, 6.78 ppm dry wt. Vetch from leeward side of I-81 near Blacksburg, VA. New York; Virginia ASV
10315 Bone	a) 6 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 1.27+/-0.25 ppm b) 47.52+/-7.05 ppm c) 3.71+/-0.65 ppm S.E. Dry wt	a) Controls, fed crown vetch grown 300 m from road b) 1979, fed vetch from near highway, before unleaded gas widely used c) 1985, vetch from near highway, unleaded gas were commonly used Crops fed as 50% dry wt of diet for 58 d. Respective levels in crops were 0.74, 50.65, 6.78 ppm dry wt. Vetch from leeward side of I-81 near Blacksburg, VA. New York; Virginia ASV
10316 Kidney	a) 6 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 0.36+/-0.05 ppm b) 5.78+/-0.72 ppm c) 0.79+/-0.09 ppm S.E. Dry wt	a) Controls, fed crown vetch grown 300 m from road b) 1979, fed vetch from near highway, before unleaded gas widely used c) 1985, vetch from near highway, unleaded gas were commonly used Crops fed as 50% dry wt of diet for 58 d. Respective levels in crops were 0.74, 50.65, 6.78 ppm dry wt. Vetch from leeward side of I-81 near Blacksburg, VA. New York; Virginia ASV

(next page)

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Woodchuck
MARMOTA MOMAX

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10317 Liver	a) 6 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 0.09+/-0.01 ppm b) 4.71+/-0.17 ppm c) 0.46+/-0.06 ppm S.E. Dry wt	a) Controls, fed crown vetch grown 300 m from road b) 1979, fed vetch from near highway, before unleaded gas widely used c) 1985, vetch from near highway, unleaded gas were commonly used Crops fed as 50% dry wt of diet for 58 d. Respective levels in crops were 0.74, 50.65, 6.78 ppm dry wt. Vetch from leeward side of I-81 near Blacksburg, VA. New York; Virginia ASV
10318 Muscle	a) 6 b) 4 c) 6 Ingestion	a) Not given b) Not given c) Not given	a) 0.07+/-0.01 ppm b) 0.14+/-0.02 ppm c) 0.07+/-0.00 ppm S.E. Dry wt	a) Controls, fed crown vetch grown 300 m from road b) 1979, fed vetch from near highway, before unleaded gas widely used c) 1985, vetch from near highway, unleaded gas were commonly used Crops fed as 50% dry wt of diet for 58 d. Respective levels in crops were 0.74, 50.65, 6.78 ppm dry wt. Vetch from leeward side of I-81 near Blacksburg, VA. New York; Virginia ASV

DELIBERATE EXPOSURE; WOODCHUCKS; LEAD; BLOOD; BONES; LIVER; MUSCLES; KIDNEYS; NEW YORK; VIRGINIA; ANIMAL FEEDS; DIETS; TERRESTRIAL; AUTOMOTIVE; LAND POLLUTION; INGESTION; VEGETATION
Young, R.W.; Ridgely, S.L.; Blue, J.T.; Bache, C.A.; Lisk, D.J. 1986 Journal of Toxicology and Environmental Health 19:91-96

Worm, annelid
EISENOIDES CAROLINENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10319 Body, whole		Not given	310 mg/kg Dry wt	Collected June-Oct 79 at Bake Oven Knob, 10 km upwind of smelters. Levels considered very high. Earthworms not 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

Lead
7439-92-1
Pb
AtW 207.2, MP 327.4 C, BP 1740 C, VP 1.77 mm Hg at 1000 C, 1 mm Hg at 970 C, 10 mm Hg at 1160 C

Zooplankton

Tissue	Cases Exposure Route	Range	Mean	General Information
10320 Body		Not given	70 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

Lead, isotope of mass 210
14255-04-0
Pb
MW 210

Blackfly
SIMULIUM sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10321 Body, whole	a) 28 b) 24	a) Not given b) Not given	a) 0.72+/-0.05 Bq/g b) 0.200+/-0.004 Bq/g Wet wt S.E.	a) From tailings system, below 1st tailings lake b) From Fredette Creek, control lake Study area affected by Eldorado Nuclear U mill effluents. 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

Caddisfly
NEMOTAULIUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10322 Body, whole	a) 9 b) 5	a) Not given b) Not given	a) 0.63+/-0.21 Bq/g b) 0.08+/-0.03 Bq/g Wet wt S.E.	a) From tailings system, just above Ba Cl2 treatment b) From Fredette Creek, control lake Study area affected by Eldorado Nuclear U mill effluents. 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

Lead, isotope of mass 210
14255-04-0
Pb
MW 210
Chub, lake
COUESIUS PLUMBEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10323 Body, whole	14	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.44+/-0.29 Bq/g b) 0.02+/-1.01 Bq/g c) 0.05+/-0.004 Bq/g d) 0.001+/-0.001 Bq/g e) 0.65+/-0.22 Bq/g f) 0.02+/-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 [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

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10324 Bone	2 Ingestion	Not given	0.57+/-0.08	From area of high natural radioactivity. Levels in the food chain components, grass (C. rubescens), grouseberry (V. scoparium) and lichens (Bryoria/Alectoria) were, respectively 0.93+/-0.45, 1.84+/-0.63, and 8.98+/-1.91 pCi/g. Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]
10325 Liver	2 Ingestion	Not given	0.03+/-0.01 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 0.93+/-0.45, 1.84+/-0.63, and 8.98+/-1.91 pCi/g. Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]
10326 Muscle	2 Ingestion	Not given	0.028+/-0.009 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 0.93+/-0.45, 1.84+/-0.63, and 8.98+/-1.91 pCi/g. Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]

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

Lead, isotope of mass 210
14255-04-0
Pb
MW 210
Dragonfly
AESCHNA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10327 Body, whole	a) 5 b) 8	a) Not given b) Not given	a) 0.04+/-0.01 Bq/g b) 0.05+/-0.03 Bq/g Wet wt S.E.	a) From tailings system, just below BaCl2 treatment b) From Fredette Creek, control lake Study area affected by Eldorado Nuclear U mill effluents. 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

Midge
CHIRONOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10328 Body, whole	1	Not applicable	0.29 Bq/g	Larvae from tailings system, mouth of Tailings Creek which receives effluent from Eldorado Nuclear U mill tailings treatment area. 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

Raven
CORVUS CORVAX

Tissue	Cases Exposure Route	Range	Mean	General Information
10329 Bone	Ingestion	Not given	0.26 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, 1.84+/-0.63, 0.06+/-0.01, and 0.036+/-0.008 pCi/g. Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]
10330 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, 1.84+/-0.63, 0.06+/-0.01, and 0.036+/-0.008 pCi/g. Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]

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

Lead, isotope of mass 210
14255-04-0
Pb
MW 210
Shiner, spottail
NOTROPIS HUDSONIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10331 Body, whole	1	a) Not given b) Not given	a) 0.70 Bq/g b) 0.03 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 [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				

Sucker, finescale
CATOSTOMUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10332 Muscle	1 Ingestion	Not given	38 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, and algae were, respectively, <0.5, 4,500+/-3,690, and 2,480 pCi/kg (value in water pCi/L). Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]
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
10333 Body, whole	7	a) Not given b) Not given c) Not given d) Not given	a) 0.50 Bq/g b) 0.02 Bq/g c) 0.53+/-0.19 Bq/g d) 0.03+/-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 [210]-Bi activity in precipitate
10334 Bone	a) 20 b) 18	a) Not given b) Not given	a) 0.03+/-0.01 Bq/g b) 0.008+/-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 [210]-Bi activity in precipitate

(next page)

Lead, isotope of mass 210
14255-04-0
Pb
MW 210

Sucker, white
CATOSTOMUS COMMERSONI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10335 Gonads	a) 20 b) 18	a) Not given b) Not given	a) 0.02+/-0.0 Bq/g b) 0.02+/-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 [210]-Bi activity in precipitate
10336 Liver	a) 20 b) 18	a) Not given b) Not given	a) 0.02+/-0.0 Bq/g b) 0.021+/-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 [210]-Bi activity in precipitate
10337 Muscle	a) 20 b) 18	a) Not given b) Not given	a) 0.0013+/-0.002 Bq/g b) 0.0003+/-0.00004 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 [210]-Bi activity in precipitate
10338 Skin	a) 20 b) 18	a) Not given b) Not given	a) 0.011+/-0.002 Bq/g b) 0.002+/-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 [210]-Bi activity in precipitate
10339 Stomach	a) 20 b) 18	a) Not given b) Not given	a) 0.52+/-0.11 Bq/g b) 0.08+/-0.01 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 [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

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
10340 Bone	17 Ingestion	Not given	75+/-34 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, and algae were, respectively, <0.5, 4,500+/-3,690, and 2,480 pCi/kg (value in water pCi/L). Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]

(next page)

Lead, isotope of mass 210
14255-04-0
Pb
MW 210

Trout, rainbow
SALMO GAIRDNERI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10341 Muscle	17 Ingestion	Not given	<20 pCi/kg Dry wt	From area of high natural radioactivity. Levels in the food chain components, water, sediment, and algae were, respectively, <0.5, 4,500+/-3,690, and 2,480 pCi/kg (value in water pCi/L). Canada, British Columbia, Okanagan Highlands Indirect-[210-Bi]

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

Whitefish, lake
COREGONUS CLUPEAFORMIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10342 Bone	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.04+/-0.01 Bq/g b) 0.008+/-0.001 Bq/g c) 0.007+/-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 [210]-Bi activity in precipitate
10343 Gonads	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.06+/-00.02 Bq/g b) 0.02+/-0.0 Bq/g c) 0.02+/-0.0 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 [210]-Bi activity in precipitate
10344 Liver	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.10+/-0.07 Bq/g b) 0.02+/-0.0 Bq/g c) 0.022+/-0.002 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 [210]-Bi activity in precipitate
10345 Muscle	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.0010+/-0.0004 Bq/g b) 0.0004+/-0.0001 Bq/g c) 0.0005+/-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 [210]-Bi activity in precipitate
10346 Skin	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.0042+/-0.0004 Bq/g b) 0.004+/-0.002 Bq/g c) 0.0017+/-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 [210]-Bi activity in precipitate

(next page)

Lead, isotope of mass 210
14255-04-0
Pb
MW 210
Whitefish, lake
COREGONUS CLUPEAFORMIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10347 Stomach	a) 22 b) 24 c) 21	a) Not given b) Not given c) Not given	a) 0.97+/-0.38 Bq/g b) 0.06+/-0.01 Bq/g c) 0.20+/-0.09 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 [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				

m-Toluamide, N,N-diethyl- (8 CI); Benzamide, N,N-diethyl-3-methyl- (9 CI)
134-62-3
C12-H17-N-O
MW 191.26, MP less than 25 C, BP 160 C at 19 mm Hg, 111 C at 1.0 mm Hg
Dog

Tissue	Cases Exposure Route	Range	Mean	General Information
10348 Urine				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
DELIBERATE EXPOSURE; TERRESTRIAL; GUINEA PIGS; MICE; RATS; RABBITS; DOGS; SKIN; BLOOD; URINE; LIVER; KIDNEYS; LACRIMAL GLANDS; NASAL MUCOSA; BILE; PLACENTA; REVIEW; INSECT REPELLENT Robbins, P.J.; Cherniack, M.G. 1986 Journal of Toxicology and Environmental Health 18:503-525				

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
10349 Skin				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10350 Urine				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
DELIBERATE EXPOSURE; TERRESTRIAL; GUINEA PIGS; MICE; RATS; RABBITS; DOGS; SKIN; BLOOD; URINE; LIVER; KIDNEYS; LACRIMAL GLANDS; NASAL MUCOSA; BILE; PLACENTA; REVIEW; INSECT REPELLENT Robbins, P.J.; Cherniack, M.G. 1986 Journal of Toxicology and Environmental Health 18:503-525				

m-Toluamide, N,N-diethyl- (8 CI); Benzamide, N,N-diethyl-3-methyl- (9 CI)
134-62-3
C12-H17-N-O
MW 191.26, MP less than 25 C, BP 160 C at 19 mm Hg, 111 C at 1.0 mm Hg

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
10351 Adipose				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10352 Adrenal gland				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10353 Bile				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10354 Blood				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10355 Brain				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10356 Kidney				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10357 Lacrimal gland				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10358 Liver				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10359 Lung				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10360 Muscle				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10361 Nasal mucosa				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.

(next page)

m-Toluamide, N,N-diethyl- (8 CI); Benzamide, N,N-diethyl-3-methyl- (9 CI)
134-62-3
C12-H17-N-O
MW 191.26, MP less than 25 C, BP 160 C at 19 mm Hg, 111 C at 1.0 mm Hg

Mouse

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10362 Skin				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10363 Urine				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.

DELIBERATE EXPOSURE; TERRESTRIAL; GUINEA PIGS; MICE; RATS; RABBITS; DOGS; SKIN; BLOOD; URINE; LIVER; KIDNEYS; LACRIMAL GLANDS; NASAL MUCOSA; BILE; PLACENTA; REVIEW; INSECT REPELLENT
Robbins, P.J.; Cherniack, M.G. 1986 Journal of Toxicology and Environmental Health 18:503-525

Rabbit

Tissue	Cases Exposure Route	Range	Mean	General Information
10364 Urine				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.

DELIBERATE EXPOSURE; TERRESTRIAL; GUINEA PIGS; MICE; RATS; RABBITS; DOGS; SKIN; BLOOD; URINE; LIVER; KIDNEYS; LACRIMAL GLANDS; NASAL MUCOSA; BILE; PLACENTA; REVIEW; INSECT REPELLENT
Robbins, P.J.; Cherniack, M.G. 1986 Journal of Toxicology and Environmental Health 18:503-525

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10365 Placenta				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.
10366 Urine				Review of biodistribution/toxicity. Discussion of skin penetration, absorption, excretion, depot storage. Need for research into absorption, carcinogenicity, neurotoxicity. Human exposure also discussed.

DELIBERATE EXPOSURE; TERRESTRIAL; GUINEA PIGS; MICE; RATS; RABBITS; DOGS; SKIN; BLOOD; URINE; LIVER; KIDNEYS; LACRIMAL GLANDS; NASAL MUCOSA; BILE; PLACENTA; REVIEW; INSECT REPELLENT
Robbins, P.J.; Cherniack, M.G. 1986 Journal of Toxicology and Environmental Health 18:503-525

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10367 Muscle	3	0.962-1.103 mg/kg Wet wt	1.053 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

Bear
URSUS SPELEUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10368 Bone	4	755-1375 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, fossilization changes, 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

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10369 Muscle	2	1.053-1.087 mg/kg Wet wt	1.070 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

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Catfish
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10370 Muscle	2	0.980-1.012 mg/kg Wet wt	0.996 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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10371 Blood, serum	607	<14-53 ppm	21.4+/-5.05 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
10372 Blood, serum	a) 149 b) 10 Ingestion	a) 2.14+/-0.072-2.46+/-0.052 mg/dl b) 2.1-2.6 mg/dl	a) 2.27+/-0.027 mg/dl b) 2.3 mg/dl	a) Controls, range of means b) Group whose postmortem vitreous humor levels were compared with antemortem serum levels. Colorimetry

BLOOD SERUM; VITREOUS HUMOR; ENVIRONMENTAL EXPOSURE; CATTLE; TERRESTRIAL; NUTRITIONAL DEFICIENCIES; MEASUREMENT METHODS; MAGNESIUM; ANIMAL FEEDS; BIOACCUMULATION
Lincoln, S.D.; Lane, V.M. 1985 American Journal of Veterinary Research 46(1):160-162

Tissue	Cases Exposure Route	Range	Mean	General Information
10373 Bone	9	3700-5100 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

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10374 Brain	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 136 ug/g b) 138 ug/g c) 135 ug/g d) 120 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis c) Same as a) except neutron aciviation analysis d) Same as a) except neutron activation analysis 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
10375 Kidney	90	105->210 ppm	146+/-37.27 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
10376 Kidney	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 191 ug/g b) 197 ug/g c) 181 ug/g d) 179 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis c) Same as a) except neutron aciviation analysis d) Same as a) except neutron activation analysis 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

Magnesium

7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10377 Liver	229	108-285 ppm	159+/-32.2 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
10378 Liver	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 191 ug/g b) 202 ug/g c) 206 ug/g d) 202 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis c) Same as a) except neutron aciviation analysis d) Same as a) except neutron activation analysis Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation
10379 Spleen	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 190 ug/g b) 186 ug/g c) 215 ug/g d) 196 ug/g Wet wt	a) Controls, fed normal feedlot ration, inductively coupled plasma analysis b) Fed feedlot ration amended with 12% municipal sewage sludge, inductively coupled plasma analysis c) Same as a) except neutron aciviation analysis d) Same as a) except neutron activation analysis 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

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10380 Vitreous humor	31 Ingestion	a) 2.0-2.9 mg/dl b) 2.2-2.4 mg/dl c) 2.0-2.8 mg/dl d) 1.9-2.2 mg/dl e) 2.2-2.6 mg/dl f) 1.7-2.3 mg/dl g) 1.6-2.4 mg/dl	a) 2.3 mg/dl b) 2.3 mg/dl c) 2.4 mg/dl d) 2.2 mg/dl e) 2.4 mg/dl f) 2.0 mg/dl g) 2.0 mg/dl	a) 1 hr postmortem, storage at 23 deg C, 21 cases b) 6 hr, 23 deg C, 8 cases c) 48 hr, 23 deg C, 13 cases d) 2 hr, 23 deg C, 9 cases e) 24 hr, 4 deg C, 9 cases f) 24 hr, 30 deg C, 8 cases g) 36 hr, 30 deg C, 10 cases At 4 C and 23 C levels are comparable with antemortem serum levels. Colorimetry
BLOOD SERUM; VITREOUS HUMOR; ENVIRONMENTAL EXPOSURE; CATTLE; TERRESTRIAL; NUTRITIONAL DEFICIENCIES; MEASUREMENT METHODS; MAGNESIUM; ANIMAL FEEDS; BIOACCUMULATION Lincoln, S.D.; Lane, V.M. 1985 American Journal of Veterinary Research 46(1):160-162				

Cattle (ancient)

Tissue	Cases Exposure Route	Range	Mean	General Information
10381 Bone	2	778-815 ug/g	797 ug/g	Pleistocene (20-50,000 yr BP) metacarpals, Bovidae family. Collected from caves. Significance of sampling techniques, fossilization changes, 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				

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10382 Kidney	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 673+/-17 ppm b) 665+/-16 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 not significant. Israel AAS

(next page)

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Chicken
GALLUS GALLUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10383 Liver	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 517+/-90 ppm b) 549+/-36 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 not significant. 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

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10384 Muscle	2	1.033-1.052 mg/kg Wet wt	1.043 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

Dog
CANIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10385 Bone	2	900-990 ug/g	945 ug/g	Pleistocene (20-50,000 yr BP) specimens. Tibia and fibula, collected from cave, late 19th century. Significance of sampling techniques, fossilization changes, 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

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Eel, American
ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10386 Muscle	2	0.948-0.985 mg/kg Wet wt	0.967 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

Horse
EQUUS CABALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10387 Bone	3	605-655	Not given	Pleistocene (20-50,000 yr BP) specimens. Femur and two humeri, collected from caves, late 19th century. Significance of sampling techniques, fossilization changes, 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

Killifish
FUNDULUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10388 Body	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 2923.0 ug/g b) 4228.0 ug/g c) 2900.0 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

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Lion
PANTHERA LEO

Tissue	Cases Exposure Route	Range	Mean	General Information
10389 Bone	1	Not applicable	1025 ug/g	Pleistocene (20,000-50,000 yr BP) metacarpal. Collected from cave, late 19th century. Significance of sampling techniques, fossilization changes, 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				

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10390 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) 2.7+/-0.2 mEp/L b) 2.3+/-0.2 mEp/L c) 2.2+/-0.2 mEp/L d) 2.6+/-0.1 mEp/L e) 2.9+/-0.1 mEp/L f) 2.3+/-0.1 mEp/L g) 2.5+/-0.1 mEp/L h) 2.8+/-0.1 mEp/L i) 2.4+/-0.1 mEp/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
10391 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) 28+/-4 ug/ml b) 29+/-4 ug/ml c) 31+/-4 ug/ml d) 27+/-2 ug/ml e) 28+/-2 ug/ml f) 24+/-2 ug/ml g) 23+/-1 ug/ml h) 23+/-1 ug/ml i) 22+/-1 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)

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Sheep
OVIS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10392 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 3,207+/-185 ug/g b) 3,459+/-185 ug/g c) 3,022+/-185 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
10393 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 569+/-26 ug/g b) 559+/-26 ug/g c) 534+/-26 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
10394 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 644+/-32 ug/g b) 520+/-32 ug/g c) 464+/-32 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
10395 Milk	15 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 114+/-6 ug/ml b) 111+/-6 ug/ml c) 112+/-6 ug/ml d) 119+/-7 ug/ml e) 129+/-7 ug/ml f) 131+/-7 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
10396 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 578+/-29 ug/g b) 558+/-29 ug/g c) 602+/-29 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
10397 Spleen	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 688+/-33 ug/g b) 568+/-33 ug/g c) 580+/-33 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

Magnesium

7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10398 Body		0.15-0.42% Dry wt	0.25% 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
10399 Body		0.18-0.50% Dry wt	0.37% 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

Sunfish, redbreast
LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10400 Muscle	2	1.022-1.168 mg/kg Wet wt	1.095 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

Magnesium
7439-95-4
Mg
AtW 24.305, MP 651 C, BP 1100 C, VP 1 mm Hg at 621 C, 10 mm Hg at 740 C

Tern, common
STERNA HIRUNDO

Tissue	Cases Exposure Route	Range	Mean	General Information
10401 Liver	a) 14 b) 15 c) 6	a) 717.0-1438.0 ug/g b) 867.4-1309.0 ug/g c) 852.9-1121.0 ug/g Dry wt	a) 999.1 ug/g b) 1059.7 ug/g c) 1003.1 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10402 Muscle	3	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

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10403 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Cat

Tissue	Cases Exposure Route	Range	Mean	General Information
10404 Hair	a) 26 b) 12 c) 10	a) <1-12 ug/g b) 3-15 ug/g c) <1-9.5 ug/g	a) 1.5 ug/g b) 8 ug/g c) 3 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

Catfish
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10405 Muscle	2	0.001-0.002 mg/kg Wet wt	0.002 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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10406 Blood, serum	607	a) 0.1-0.2 mg/L b) Not detected	a) Not given b) Not given	a) 5 cases b) 602 cases Detection limit 0.1 mg/L. 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10407 Brain	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 0.35 ug/g b) 0.34 ug/g c) 0.33 ug/g d) 0.31 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 Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation; ICP, 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
10408 Kidney	90	0->1.2 ppm	0.65+/-0.26 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
10409 Kidney	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 1.2 ug/g b) 1.3 ug/g c) 1.14 ug/g d) 1.28 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 Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation; ICP, 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10410 Liver	229	0.3->4.2 ppm	2.17+/-1.84 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
10411 Liver	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 3.46 ug/g b) 3.31 ug/g c) 3.35 ug/g d) 3.32 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 Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation; ICP, Chelex separation
10412 Spleen	a) 6 b) 6 c) 6 d) 6 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 0.73 ug/g b) 1.15 ug/g c) 0.72 ug/g d) 1.23 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 Fort Collins anaerobically digested sludge. Colorado ICP, no Chelex separation; ICP, 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Chicken
GALLUS GALLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10413 Kidney	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 5+/-1.6 ppm b) 8+/-0.2 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 not significant. Israel AAS
10414 Liver	a) 18 b) 18 Ingestion	a) Not given b) Not given	a) 11+/-1.5 ppm b) 11+/-1.3 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 not significant. 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

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10415 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

Deer, mule
ODOCOILEUS HEMIONUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10416 Hair	20	1.7-38.9 mg/kg	12.8+/-10.9 mg/kg	Specimens (5-10 g) collected 10/81 from dorsal part of neck. 1.5-6.5-yr-old deer from herd with low fawning rate. Idaho, Council AAS

DEER; HAIR; COPPER; MANGANESE; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; IDAHO; NUTRITIONAL DEFICIENCIES
Dunbar, M.R.; Foreyt, W.J. 1985 Journal of the American Veterinary Medical Association 187(11):1180

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Dog

Tissue	Cases Exposure Route	Range	Mean	General Information
10417 Hair	a) 24 b) 5	a) <1-24 ug/g b) <1 ug/g	a) 7 ug/g b) <1 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

Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
10418 Adipose	a) 1 b) 1 c) 1	a) 0.01-0.01 ug/g b) 0.01-0.01 ug/g c) 0.01-0.01 ug/g Wet wt	a) 0.01 ug/g b) 0.01 ug/g c) 0.01 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 37.2+/-5.15, 26.7+/-3.41, 28.1+/-5.41, repectively. Japan, Taiji, Kii Peninsula AAS
10419 Adrenal gland	3	a) Not applicable b) Not applicable c) Not applicable	a) 1.22 ug/g b) 0.29 ug/g c) 0.53 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)

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10420 Blood	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.09 ug/g b) 0.10 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
10421 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) 2.30 ug/g b) 1.97 ug/g c) 1.51 ug/g d) 1.64 ug/g e) 1.01 ug/g f) 1.02 ug/g g) 0.95 ug/g h) 1.52 ug/g i) 1.28 ug/g j) 1.19 ug/g k) 2.77 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
10422 Cartilage	3	a) Not applicable b) Not applicable c) Not applicable	a) 1.00 ug/g b) 0.04 ug/g c) 0.35 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
10423 Cerebellum	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.81 ug/g b) 0.40 ug/g c) 0.35 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
10424 Cerebrum	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.40 ug/g b) 0.29 ug/g c) 0.41 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)

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10425 Diaphragm	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.55 ug/g b) 0.11 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
10426 Heart	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.45 ug/g b) 0.52 ug/g c) 0.60 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
10427 Intestine	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.73 ug/g b) 0.20 ug/g c) 0.33 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
10428 Kidney	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.48 ug/g b) 0.45 ug/g c) 0.56 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
10429 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.94 ug/g b) 2.51 ug/g c) 3.06 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
10430 Lung	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.21 ug/g b) 0.19 ug/g c) 0.13 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)

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10431 Mammary gland	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.55 ug/g [sic] b) 0.55 ug/g Wet wt	a) Mature male [sic] 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
10432 Medulla oblongata	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.60 ug/g b) 0.24 ug/g c) 0.24 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
10433 Muscle	a) 1 b) 1 c) 1	a) 0.26-0.29 ug/g b) 0.22-0.28 ug/g c) 0.28-0.35 ug/g Wet wt	a) 0.28+/-0.01 ug/g b) 0.25+/-0.02 ug/g c) 0.32+/-0.03 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
10434 Ovary	a) 1 b) 1	a) Not applicable b) Not applicable	a) 3.32 ug/g [sic] b) 3.32 ug/g Wet wt	a) Mature male [sic] 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
10435 Pancreas	a) 1 b) 1	a) Not applicable b) Not applicable	a) 1.05 ug/g b) 1.12 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
10436 Placenta	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.29 ug/g [sic] b) 0.29 ug/g Wet wt	a) Mature male [sic] 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

(next page)

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10437 Skin	3	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 1.49 ug/g b) 0.98 ug/g c) 0.60 ug/g d) 0.32 ug/g e) 1.04 ug/g f) 0.13 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
10438 Spleen	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.34 ug/g b) 0.32 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
10439 Stomach	3	a) 0.40-1.01 ug/g b) 0.11-0.88 ug/g c) 0.20-0.93 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. Only 2 samples in a). Japan, Taiji, Kii Peninsula AAS
10440 Uterus	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.29 ug/g [sic] b) 0.29 ug/g Wet wt	a) Mature male [sic] 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
10441 Vagina	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.13 [sic] b) 0.13 ug/g Wet wt	a) Mature male [sic] 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

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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Duck, mottled
ANAS FULVIGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10442 Bone	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 6.6+/-0.6 mg/kg b) 10.1+/-0.9 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
10443 Feathers	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 6.2+/-0.4 mg/kg b) 2.5+/-0.4 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.001$). 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, American
ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10444 Muscle	2	0.002-0.002 mg/kg Wet wt	0.002 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
10445 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) 1.59+/-0.15 ug/g b) 0.90+/-0.16 ug/g c) 1.46+/-0.46 ug/g d) 1.25+/-0.10 ug/g e) 1.82+/-0.60 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 1.25+/-0.37 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10446 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) 0.35 ug/g b) 1.29 ug/g c) 2.18 ug/g d) 1.68 ug/g e) 1.88 ug/g f) 3.48 ug/g g) 2.90 ug/g h) 3.26 ug/g i) 3.38 ug/g j) 3.41 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
10447 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) 1.43+/-0.20 ug/g b) 1.67+/-0.45 ug/g c) 2.11+/-0.30 ug/g d) 3.03+/-0.90 ug/g e) 2.28+/-0.19 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 1.99+/-0.63 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10448 Brain		a) Not given b) Not given c) Not given d) Not given	a) 0.20+/-0.05 ug/g b) 0.20+/-0.04 ug/g c) 0.22+/-0.09 ug/g d) 0.49+/-0.08 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 0.21+/-0.11 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10449 Feathers	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 1.00 ug/g b) 5.62 ug/g c) 10.4 ug/g d) 17.5 ug/g e) 0.93 ug/g f) 15.2 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10450 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) 0.05+/-0.02 ug/g b) 1.06+/-0.45 ug/g c) 4.18+/-3.27 ug/g d) 1.58+/-0.50 ug/g e) 7.04+/-4.05 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 2.03+/-2.07 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10451 Kidney	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.52+/-0.12 ug/g b) 0.98+/-0.15 ug/g c) 1.10+/-0.10 ug/g d) 1.58+/-0.15 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 0.90+/-0.22 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10452 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) 1.52+/-0.16 ug/g b) 2.26+/-0.84 ug/g c) 2.98+/-0.32 ug/g d) 3.79+/-0.25 ug/g e) 3.47+/-0.29 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 2.65+/-0.73 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10453 Muscle	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 0.26 ug/g b) 0.27 ug/g c) 0.43 ug/g d) 0.32 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
10454 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) 1.13+/-0.03 ug/g b) 10.30+/-0.08 ug/g c) 0.21+/-0.05 ug/g d) 0.20+/-0.05 ug/g e) 0.42+/-0.05 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 0.37+/-0.30 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10455 Skin	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.70+/-0.17 ug/g b) 1.12+/-0.20 ug/g c) 1.00+/-0.08 ug/g d) 3.04+/-1.76 ug/g	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 0.86+/-0.25 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Gadwall
ANAS STREPERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10456 Bone	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 16.5+/-1.3 mg/kg b) 25.5+/-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
10457 Feathers	a) 61 b) 2 Ingestion	a) Not given b) Not given	a) 26.7+/-6.1 mg/kg b) 58.1+/-50.4 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

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10458 Hair	2	<1 ug/g	<1 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

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
10459 Hair	10	<2 ug/g	<2 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Gull, laughing
LARUS ATRICILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
10460 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.
10461 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.
10462 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.
10463 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.
10464 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.
10465 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
10466 Hair	5	<1 ug/g	<1 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Killifish
FUNDULUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10467 Body	a) 2 b) 2 c) 2	a) Not given b) Not given c) Not given	a) 13.4 ug/g b) 24.6 ug/g c) 16.0 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10468 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

Monkey, crab-eating

Tissue	Cases Exposure Route	Range	Mean	General Information
10469 Hair	1	Not applicable	<1 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
10470 Hair	4	<1 ug/g	<1 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

Mussel
MYTILUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10471 Body	a) 405 b) 630 c) 495 d) 150	a) 15.6+/-1.3-36.9+/-4.7 ug/g b) 9.8+/-3.4-42+/-3.6 ug/g c) 12.0+/-1.5-35.5+/-4.9 ug/g d) 5.5+/-0.3-9.5+/-1.9 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
10472 Body		a) 2.8-5.0 ug/g b) 5.5-11.4 ug/g Dry wt	a) 3.9 ug/g b) 7.4 ug/g Dry wt	a) Gonadal tissue, range: values at 9/1/81 and 1/15/81 b) Somatic tissue, range: values at 10/9/80 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10473 Gills	a) 15 b) 14	a) <1-20 ug/g b) <1-14 ug/g Dry wt	a) 6.5+/-6.4 ug/g b) 3.7+/-4.5 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
10474 Viscera	a) 15 b) 14	a) <1-18 ug/g b) <1-10.4 ug/g Dry wt	a) 7.4+/-6.3 ug/g b) 4.1+/-3.8 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

Oyster, cape
CRASSOSTREA MARGARITACEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10475 Body	426 (approx)	0.1+/-0.1-2.5+/-1.5 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

Pig, miniature

Tissue	Cases Exposure Route	Range	Mean	General Information
10476 Hair	1	Not applicable	<1 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Pintail
ANAS ACUTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10477 Bone	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 11.5 mg/kg b) 12.8+/-1.4 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10478 Feathers	a) 14 b) 4 Ingestion	a) Not given b) Not given	a) 6.4+/-0.1 mg/kg b) 3.3+/-0.9 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

Rabbit

Tissue	Cases Exposure Route	Range	Mean	General Information
10479 Hair	6	<1 ug/g	<1 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10480 Hair	2	<1 ug/g	<1 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Scaup, lesser
AYTHYA AFFINIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10481 Bone	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 9.5+/-0.5 mg/kg b) 9.8+/-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
10482 Feathers	a) 32 b) 17 Ingestion	a) Not given b) Not given	a) 2.5+/-0.3 mg/kg b) 1.9+/-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

Sea lion, California
ZALOPHUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10483 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.
10484 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Seal, harbor
PHOCA VITULINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10485 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.
10486 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

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10487 Bone	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 3+/-0.4 ug/g b) 3+/-0.4 ug/g c) 3+/-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

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
10488 Brain	a) 7 b) 15	a) Not given b) Not given	a) 0.15+/-0.07 ug/g b) 0.17+/-0.09 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

Manganese

7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10489 Kidney	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 5+/-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

Tissue	Cases Exposure Route	Range	Mean	General Information
10490 Kidney	a) 7 b) 15	a) Not given b) Not given c) Not given d) Not given	a) 1.52+/-0.40 ug/g b) 1.22+/-0.18 ug/g c) 1.60+/-0.44 ug/g d) 1.38+/-0.13 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
10491 Liver	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 6+/-0.7 ug/g b) 8+/-0.7 ug/g c) 6+/-0.7 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

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Sheep
OVIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10492 Liver	a) 7 b) 15 Ingestion	a) 57.1-286 ug/g b) 62.5-620 ug/g Wet wt	a) 2.44+/-0.42 b) 1.98+/-0.54 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 Significantly different $p<0.05$. 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
10493 Muscle	a) 5 b) 5 c) 5 Ingestion	a) Not given b) Not given c) Not given	a) 0.7+/-0.1 ug/g b) 0.7+/-0.1 ug/g c) 0.7+/-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
10494 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) 2+/-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				

Shoveler
ANAS CLYPEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10495 Bone	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 19.2+/-1.5 mg/kg b) 16.1+/-1.1 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)

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Shoveler
ANAS CLYPEATA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10496 Feathers	a) 49 b) 6 Ingestion	a) Not given b) Not given	a) 5.2+/-0.7 mg/kg b) 10.5+/-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
10497 Body		0-25 ug/g Dry wt	6.7 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
10498 Body		12.5-105 ug/g Dry wt	45.0 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				

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Sunfish, redbreast
LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10499 Muscle	2	0.001-0.002 mg/kg Wet wt	0.002 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
10500 Muscle	2	0.001-0.002 mg/kg Wet wt	0.002 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
10501 Bone	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 10.3+/-0.9 mg/kg b) 8.0+/-0.3 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10502 Feathers	a) 336 b) 11 Ingestion	a) Not given b) Not given	a) 4.5+/-0.4 mg/kg b) 4.2+/-0.7 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				

Manganese
7439-96-5
Mn
AtW 54.9380, MP 1244 C, BP 2095 C, VP 1 mm Hg at 1292 C, 10 mm Hg at 1510 C

Tern, common
STERNA HIRUNDO

Tissue	Cases Exposure Route	Range	Mean	General Information
10503 Liver	a) 14 b) 15 c) 6	a) 13.0-29.0 ug/g b) 12.5-23.6 ug/g c) 14.9-22.3 ug/g Dry wt	a) 18.9 ug/g b) 18.6 ug/g c) 18.4 ug/g Dry wt ug/g	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 0.50 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Avocet, American
RECURVIROSTRA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
10504 Liver	a) 10 b) 5 c) 5	a) 0.02-0.3 ppm b) 0.07-0.2 ppm c) 0.05-0.3 ppm Wet wt	a) 0.1 ppm b) 0.1 ppm c) 0.1 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10505 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.19 ug/g b) 0.79 ug/g c) 0.51 ug/g d) 0.23 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10506 Muscle	3	0.354-0.450 mg/kg Wet wt	0.392 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

Bass, striped
MORONE SAXATILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10507 Gonads	a) 9 b) 10	a) 0.007-0.271 ug/g b) Not detected-0.123 ug/g	a) 0.090 ug/g b) Not given	a) Collected 1978, Choptank River b) Collected April, 1979, Rock Hall, Chesapeake Bay. Detection limit 0.001 ug/g. Mean 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

(next page)

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Bass, striped
MORONE SAXATILIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10508 Liver	a) 28 b) 10	0.068-1.209 ug/g	0.361 ug/g	Collected May, 1978, Turkey Creek. Detection limit 0.001. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10509 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10510 Muscle	a) 28 b) 10	a) 0.197-0.865 ug/g b) 0.531-0.865 ug/g	a) 0.510 ug/g b) 0.606 ug/g	a) Collected May, 1978, Turkey Point b) Collected April, 1979, Rock Detection limit 0.001. Means 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Bat

Tissue	Cases Exposure Route	Range	Mean	General Information
10511 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; Japan
10512 Hair				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
10513 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
10514 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
10515 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

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.

Bird

Tissue	Cases Exposure Route	Range	Mean	General Information
10516 Eggs	20	0.08-4.3 ppm Dry wt	0.72 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. Species included American coot (FULICA AMERICANA), mallard (ANAS PLATYRHYNCHOS), northern pintail (A. ACUTA), cinnamon teal (A. CYANOPTERA), gadwall (A. STREPTERA), black-necked stilt (HIMANTOPUS MEXICANUS), American avocet (RECURVIROSTRA AMERICANA) and eared grebe (PODICEPS NIGRICOLLIS). California, San Joaquin Valley Cold vapor-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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Blackbird
TURDUS MERULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10517 Muscle	1	Not given	0.03 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, southern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10518 Muscle	1	Not applicable	0.04 ppm Wet wt	Adult, wt 94 g. Shot 7/76. Sweden, Vastergotland, Vanersborg NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Bluefish
POMATOMUS SALTATRIX

Tissue	Cases Exposure Route	Range	Mean	General Information
10519 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10520 Muscle	2	0.135-0.050 mg/kg Wet wt	0.093 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
10521 Liver	5	0.22-0.77 ppm Wet wt	0.35 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10522 Muscle	5	0.10-0.54 ppm Wet wt	0.23 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Bowfin
AMIA CALVA

Tissue	Cases Exposure Route	Range	Mean	General Information
10523 Body, whole		a) Not given b) Not given c) Not given	a) 0.55 ug/g b) 0.32 ug/g c) 0.56 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

Buffalo, smallmouth
ICTIOBUS BUBALUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10524 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.13 ug/g b) 0.25 ug/g c) 0.41 ug/g d) 0.06 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
10525 Muscle	25	Not given	1.07+/-0.53 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Levels correlated with age of animal. Norway AAS

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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Cat

Tissue	Cases Exposure Route	Range	Mean	General Information
10526 Hair	a) 26 b) 12 c) 10	a) 2.5-71 ug/g b) <2-5 ug/g c) 2.5-8 ug/g	a) 21 ug/g b) 2.5 ug/g c) 4.0 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

Catfish
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10527 Muscle	2	0.095-0.125 mg/kg Wet wt	0.110 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

Catfish, channel
ICTALURUS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10528 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.09 ug/g b) 0.11 ug/g c) 0.14 d) 0.10 ug/g e) 0.16 ug/g f) 0.07 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Cisco
COREGONUS ALBULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10529 Muscle	20	Not given	0.21+/-0.08 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Levels correlated with age of animal. Norway AAS

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
10530 Body		a) Not given b) Not given	a) 0.003+/-0.006 ppm b) <0.001 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

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
10531 Body	17	0.08-0.33 mg/kg Wet wt	0.14 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978. 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
10532 Liver	Ingestion	0.020-0,12 mg/kg	Not given	Days 0 and 48. Level at end of uptake period (32 d) was 0.90 mg/kg, at end of depletion (64 d) was 0.075 mg/kg. 2 mg/Hg/kg food. Some values estimated from graph. Norway, Bergen, Masfjord AAS
10533 Muscle	Ingestion	0.037-0.06 mg/kg	Not given	Days 0 and 48. Level at end of uptake period (32 d) was 0.56 mg/kg, at end of depletion (64 d) was 0.04 mg/kg. 2 mg/Hg/kg food. Some values estimated from graph. Norway, Bergen, Masfjord AAS

DELIBERATE EXPOSURE; AQUATIC; FISHES; MERCURY; METHYLMERCURY; LIVER; MUSCLES; WATER POLLUTION; NORWAY; INGESTION; FOOD CONTAMINATION
Julshamn, K.; Ringdal, O.; Braekkan, O.R. 1982 Bulletin of Environmental Contamination and Toxicology 29:544-549

Coot, American
FULICA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
10534 Liver	a) 19 b0 10 c) 79 d) 40	a) Not detected-0.06 ppm b) Not detected-0.09 ppm c) Not detected-0.84 ppm d) Not detected-0.86 ppm Wet wt	a) 0.02 ppm b) 0.03 ppm c) 0.22 ppm d) 0.04 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 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

Copepod

Tissue	Cases Exposure Route	Range	Mean	General Information
10535 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Cormorant, double-crested
PHALACROCORAX AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10536 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.
10537 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

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10538 Muscle	2	0.187-0.212 mg/kg Wet wt	0.200 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
10539 Body, whole		a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.21 ug/g b) 0.20 ug/g c) 0.19 ug/g d) 0.19 ug/g e) 0.46 ug/g f) 0.14 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Deer, fallow
DAMA DAMA

Tissue	Cases Exposure Route	Range	Mean	General Information
10540 Liver	8	0.07-0.56 ppm Wet wt	0.23 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10541 Muscle	8	0.05-0.37 ppm Wet wt	0.16 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10542 Liver	8	0.15-0.34 ppm Wet wt	0.26 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10543 Muscle	8	0.08-0.33 ppm Wet wt	0.21 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Diver, black-throated
GAVIA ARCTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10544 Muscle	1	Not applicable	1.95 mg/kg	Fish-eating bird found dead in lake Pihlajavesi. Total mercury measured. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Dog

Tissue	Cases Exposure Route	Range	Mean	General Information
10545 Hair	a) 20 b) 5	a) <1-3 ug/g b) <1 ug/g	a) 2.3 ug/g b) <1 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

Dogfish
SQUALUS ACANTHIAS

Tissue	Cases Exposure Route	Range	Mean	General Information
10546 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
10547 Adipose	a) 4 b) 6 c) 3 d) 1	a) 2.9-5.9% b) 2.1-4.0% c) 3.3-10.0% d) Not applicable	a) 4.6% b) 3.2% c) 6.5% d) 5.6%	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 Hg in whole body. Calculated means. Pacific Ocean AAS
10548 Body, whole	a) 4 b) 6 c) 3 d) 1	a) 0.791-4.51 mg/kg b) 4.79-11.3 mg/kg c) 8.32-9.60 mg/kg d) Not applicable	a) 2.54 mg/kg b) 8.76 mg/kg c) 9.15 mg/kg d) 8.58 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
10549 Liver	a) 4 b) 6 c) 3 d) 1	a) 18-37% b) 20-35% c) 23-30% d) Not applicable	a) 27% b) 28% c) 26% d) 30%	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 Hg in whole body. Calculated means. Pacific Ocean AAS
10550 Muscle	a) 4 b) 6 c) 3 d) 1	a) 49-67% b) 51-68% c) 54-60% d) Not applicable	a) 57% b) 59% c) 57% d) 56%	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 Hg 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Dove, rock
COLUMBA LIVIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10551 Muscle	10	Not given	<0.007 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, southern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10552 Muscle	10	Not detected	Not detected	Adults, mean wt 334+/-23 g. Shot 7/76. Detection limit not given. Sweden, Vastergotland, Vanersborg NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Duck, tufted
AYTHYA FULIGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10553 Muscle	3	Not given	0.09+/-0.02 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10554 Muscle	3	0.07-0.12 ppm Wet wt	0.09+/-0.02 ppm Wet wt	Adults, mean wt 832+/-110 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
10555 Body	18	0.13-0.36 mg/kg Wet wt	0.23 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10556 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

Eel, American
ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10557 Muscle	2	0.102-0.134 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10558 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) 0.07+/-0.03 ug/g b) 0.04+/-0.01 ug/g c) 0.23+/-0.14 ug/g d) 0.13+/-0.03 ug/g e) 0.55+/-0.16 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 0.10+/-0.10 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
10559 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) 0.033 ug/g b) 0.029 ug/g c) 0.029 ug/g d) 0.027 ug/g e) 0.022 ug/g f) 0.208 ug/g g) 0.042 ug/g h) 0.087 ug/g i) 0.109 ug/g j) 0.072 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10560 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) 0.04+/-0.01 ug/g b) 0.04+/-0.01 ug/g c) 0.11+/-0.06 ug/g d) 0.03+/-0.01 ug/g e) 0.23+/-0.05 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+/-0.04 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10561 Brain	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) <0.005 ug/g b) 0.05+/-0.01 ug/g c) 0.05+/-0.01 ug/g d) 0.28+/-0.12 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+/-0.04 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
10562 Feathers	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 0.28 ug/g b) 2.43 ug/g c) 2.46 ug/g d) 3.12 ug/g e) 2.37 ug/g f) 3.26 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10563 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) 0.13+/-0.03 ug/g b) 0.19+/-0.03 ug/g c) 1.19+/-1.20 ug/g d) 0.61+/-0.07 ug/g e) 2.65+/-0.95 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 0.54+/-0.71 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10564 Kidney	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.10+/-0.05 ug/g b) 0.46+/-0.41 ug/g c) 0.22+/-0.02 ug/g d) 0.71+/-0.21 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 0.28+/-0.36 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10565 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) 0.26+/-0.03 ug/g b) 0.15+/-0.03 ug/g c) 0.84+/-0.93 ug/g d) 0.44+/-0.04 ug/g e) 1.30+/-0.56 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 0.36+/-0.47 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
10566 Muscle	2	a) Not applicable b) Not applicable c) Not applicable d) Not applicable	a) 0.05 ug/g b) 0.05 ug/g c) 0.26 ug/g d) 0.21 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Egret, eastern great white
EGRETTA ALBA MODESTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10567 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) 0.06+/-0.03 ug/g b) 0.04+/-0.01 ug/g c) 0.11+/ 0.09 ug/g d) 0.08+/-0.02 ug/g e) 0.29+/-0.05 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+/-0.05 ug/g. Collected 4-8/81. Korea, Chungcheongnando, Cheonan City AAS
10568 Skin	a) 9 b) 6 c) 4 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 0.06+/-0.02 ug/g b) 0.39+/-0.38 ug/g c) 0.10+/-0.01 ug/g d) 0.51+/-0.20 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 0.21+/-0.28 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

Falcon, peregrine
FALCO PEREGRINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10569 Eggs	39	a) Not given b) Not given	a) 2.73 ppm b) 2.45 ppm Dry wt	a) Northern areas b) Southern areas Collected 1972-81. Sweden NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Falcon, peregrine
FALCO PEREGRINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10570 Feathers	a) 9 b) 20 c) 7 d) 4 e) 12 f) 10 g) 6 h) 6	a) 4.70-23.30 ppm b) 6.90-29.50 ppm c) Not given d) Not given e) Not given f) Not given g) Not given h) Not given Dry wt	a) 9.95+/-5.62 ppm b) 17.60+/-5.23 ppm c) 2.79+/-3.10 ppm d) 6.30+/-0.34 ppm e) 8.31+/-2.59 ppm f) 15.20+/-6.83 ppm g) 4.45+/-1.73 ppm h) 1.40+/-1.05 ppm Dry wt	a) Adult females, southern Sweden, 1971-77 b) Adult females, northern Sweden, 1971-77 c) Nestlings, southern Sweden, 1976-78 d) Nestlings, central Sweden, 1976-78 e) Nestlings, northern Sweden, 1976-78 f) Sexes and all types combined, southern Sweden, 1967-70 g) Nestlings, Finland, 1974-75 h) Nestlings, Scotland, 1974-75. Sweden; Finland; Scotland NA

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10571 Feathers	a) 1 b) 2 c) 4 d) 4 e) 3 f) 4 g) 2 h) 1	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) 2.6 ug/g b) 1.2 ug/g c) 1.4 ug/g d) 1.06 ug/g e) 3.47 ug/g f) 4.0 ug/g g) 3.0 ug/g h) 2.3 ug/g Dry wt	a) Female, captured 6-7/76 b) Females, 6-7/76 c) Females, 1 in 6-7/76, 2 in 7/77 d) 2 females, 1 male in 7/77, 1 female 7/76 e) 1 female in 7/77, 1 female, 1 male 4-5/77 f) 3 males in 5/76, 1 in 4-7/75 g) Females, 6/76 h) Female, 6/76 Different sites. Molted feathers from adults. Levels reflected contamination at least 1 yr before molt. Levels in an adlut decreased from 2.6-2.8 to 0.46-1.0 ug/g after 1 yr of captivity. Scotland

ENVIRONMENTAL EXPOSURE; BIRDS; TERRESTRIAL; FEATHERS; MERCURY; BIOACCUMULATION; SCOTLAND
Lindberg, P.; Mearns, R. 1986 Bulletin of Environmental Contamination and Toxicology 28:181-185

Tissue	Cases Exposure Route	Range	Mean	General Information
10572 Muscle	4	0.22-0.25 ppm Wet wt	0.24 ppm Wet wt	Nestlings found dead at two eyries, 1977. Weight range 290-400 g. Sweden, northern NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury

7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Fieldfare
TURDUS PILARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10573 Muscle	a) 5 b) 10	a) Not given b) Not given	a) 0.07+/-0.04 ppm b) 0.04+/-0.02 ppm Wet wt	a) Northern Sweden b) Southern Sweden Measured in pectoral muscle of common prey species from peregrine. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10574 Muscle	a) 5 b) 10	a) 0.04-0.11 ppm b) 0.02-0.07 ppm Wet wt	a) 0.07+/-0.03 ppm b) 0.03+/-0.02 ppm Wet wt	a) Gallivare, Norrbotten, mean wt 89+/-6 g b) Vanersborg, Vastergotland, mean wt 92+/-11 g Adults, shot 6/76-7/76. Sweden NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
10575 Body, whole	1830-3050	a) 0.01-1.10 ug/g b) 0.01-0.77 ug/g Wet wt	a) 0.11 ug/g b) 0.11 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Fish

Tissue	Cases Exposure Route	Range	Mean	General Information
10576 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
10577 Muscle	a) 127 b) 80	a) 0.009-0.865 ug/g b) 0.007-0.865 ug/g	a) 0.189 ug/g b) 0.134 ug/g	a) Collected 1978 b) Collected 1979 Detection limit 0.001 ug/g. Means calculated by extractor. Part of study to measure contamination levels of the aquatic ecosystem and to develop base-line 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
10578 Eggs				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.
10579 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Gar, spotted
LEPISOSTEUS OCULATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10580 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) 0.29 ug/g b) 0.17 ug/g c) 0.21 ug/g d) 0.31 ug/g e) 0.41 ug/g f) 0.30 ug/g g) 0.25 ug/g h) 0.25 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

Goat
CAPRA sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10581 Hair	2	<1 ug/g	<1 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Godwit, bar-tailed
LIMOSA LAPPONICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10582 Feathers	a) 10 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) 0.29+/-0.20 mg/kg b) 0.43+/-0.23 mg/kg c) 1.96+/-0.41 mg/kg d) 2.50+/-0.95 mg/kg e) 3.67+/-2.00 mg/kg f) 4.89+/-0.97 mg/kg	a) Juveniles, 1979-1982 b) Adults, 1904-1963 c) Adults, 1979-1982, Schiermonnikoog, male d) Female e) Adults, 1979-1982, Vlieland, male f) Female Age, year and location of collection, and sex. Samples collected prior to 1979 from Zoological Museum, Amsterdam. Juvenile primaries and adult No. 8 primaries analyzed. Dutch Wadden Sea NA
10583 Liver	10	Not detected-4.5 mg/kg Dry wt	Not given	Estimated from graph. Limit of detection 1.5 mg/kg. 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

Goldeneye
BUCEPHALA CLANGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10584 Eggs		a) Not given b) Not given c) Not given d) Not given e) Not given	a) 25 ng b) 30 ng c) 35 ng d) 20 ng Wet wt	a) Collected at Lake Pihlajavesi b) Lake Seinajarvi b) Kalajarvi, reservoir filled in 1977 c) Porttipahta, reservoir filled in 1970 Total Hg in 50 g of eggs (shells not analyzed). Collected 1980-84. Estimated from graph. Finland
10585 Muscle	a) 6 b) 8 c) 10 d) 5	a) 0.19-0.52 mg/kg b) 0.01-0.31 mg/kg c) 0.15-1.06 mg/kg d) 0.08-0.17 mg/kg Wet wt	a) 0.33 mg/kg b) 0.14 mg/kg c) 0.43 mg/kg d) 0.11 mg/kg Wet wt	a) Shot at Lake Pihlajavesi b) Lake Seinajarvi b) Kalajarvi, reservoir filled in 1977 c) Porttipahta, reservoir filled in 1970 Chest muscle samples from adults and juveniles collected 1980-84. Measured total Hg. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Mercury

7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Goldeye
HIODON ALOSOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10586 Muscle	a) 10 b) 69	a) 295-633 ug/kg b) 294-1766 ug/kg Wet wt	a) 452 ug/kg b) 594 ug/kg Wet wt	a) Upstream North Saskatchewan River (NSR) b) Central-east Alberta segment of NSR Collected 1982. Mercury bioconcentration factor was 2.07X10(E+3). Canada, Alberta, North Saskatchewan River
MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468				

Grebe, black-necked
PODICEPS NIGRICOLLIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10587 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) 1.14+/-0.23 ug/g b) 0.53+/-0.20 ug/g c) 1.50+/-0.73 ug/g d) 0.85+/-0.33 ug/g e) 0.79+/-0.43 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
10588 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) 14.91+/-3.71 ug/g b) 3.61+/-2.43 ug/g c) 14.75+/-3.89 ug/g d) 3.71+/-1.41 ug/g e) 13.45+/-3.19 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
10589 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) 35.04+/-6.99 ug/g b) 7.63+/-1.53 ug/g c) 14.80+/-4.57 ug/g d) 10.73+/-5.33 ug/g e) 28.50+/-2.97 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

(next page)

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Grebe, black-necked
PODICEPS NIGRICOLLIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10590 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) 57.90+/-9.94 ug/g b) 9.37+/-2.23 ug/g c) 48.52+/-9.07 ug/g d) 16.57+/-7.71 ug/g e) 42.38+/-5.75 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
10591 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) 11.83+/-3.86 ug/g b) 3.70+/-1.53 ug/g c) 5.99+/-1.69 ug/g d) 4.21+/-1.31 ug/g e) 10.77+/-3.13 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
10592 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) 10.24+/-3.50 ug/g b) 3.77+/-2.29 ug/g c) 9.86+/-3.12 ug/g d) 4.15+/-0.72 ug/g e) 10.01+/-1.60 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

Greenshank, common
TRINGA NEBULARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10593 Muscle	5	Not given	0.43+/-0.07 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Greenshank, common
TRINGA NEBULARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10594 Muscle	5	0.32-0.54 ppm Wet wt	0.44+/-0.08 ppm Wet wt	Adults, mean wt 148+/-14 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 *Archives of Environmental Contamination and Toxicology* 14:203-212

Grouse, willow
LAGOPUS LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10595 Muscle	13	Not detected	Not detected	Adults, mean wt 564+/-34 g. Shot 6/76-7/76 and 6/77-9/77. Detection limit not given. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 *Archives of Environmental Contamination and Toxicology* 14:203-212

Guillemot, common
URIA AALGE

Tissue	Cases Exposure Route	Range	Mean	General Information
10596 Eggs	a) 10 b) 9 c) 7 d) 8	a) Not given b) Not given c) Not given d) Not given	a) 0.12+/-0.04 ug/g b) 0.11+/-0.06 ug/g c) 0.13+/-0.04 ug/g d) 0.08+/-0.01 ug/g Wet wt	a) East Finnmark b) West Finnmark c) South Troms/North Nordland d) Lofoten Collected 1983. Norway

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Guinea pig

Tissue	Cases Exposure Route	Range	Mean	General Information
10597 Hair	10	<2 ug/g	<2 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

Gull, common black-headed
LARUS RIDIBUNDUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10598 Muscle	a) 7 b) 8	a) Not given b) Not given	a) 0.26+/-0.08 ppm b) 0.14+/-0.10 ppm Wet wt	a) Northern Sweden b) Southern Sweden Measured in pectoral muscle of common prey species from peregrine. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10599 Muscle	a) 7 b) 8	a) 0.18-0.38 ppm b) 0.05-0.35 ppm Wet wt	a) 0.26+/-0.08 ppm b) 0.13+/-0.11 ppm Wet wt	a) Gallivare, Norrbotten, adults, mean wt 263+/-28 g b) Vanersborg, Vastergotland, 6 adults, 2 juveniles, mean wt 261+/-39 g Shot 6/76-7/76. Sweden NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury

7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Gull, herring
LARUS ARGENTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10600 Eggs	a) 9 b) 11 c) 13 d) 10	a) Not given b) Not given c) Not given d) Not given	a) 0.10+/-0.03 ug/g b) 0.07+/-0.05 ug/g c) 0.09+/-0.04 ug/g d) 0.10+/-0.06 ug/g Wet wt	a) East Finnmark b) West Finnmark c) South Troms/North Nordland d) Lofoten Collected 1983. Norway

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING

Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Hake
MERLUCCIUS MERLUCCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10601 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
10602 Hair	5	<1 ug/g	<1 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Hare, brown
LEPUS CAPENSIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10603 Liver	5	0.12-0.24 ppm Wet wt	0.17 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10604 Muscle	5	0.06-0.30 ppm Wet wt	0.13 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10605 Liver	5	0.22-1.23 ppm Wet wt	0.41 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10606 Muscle	5	0.13-0.33 ppm Wet wt	0.020 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10607 Body	14	0.03-0.08 mg/kg Wet wt	0.05 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978. 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
10608 Liver	a) 9 b) 14	a) Not detected-0.46 ppm b) Not detected-0.34 ppm Dry wt	a) 0.259 ppm b) Not given Dry wt Geometric	a) Detected in 8/9 composite samples of aquatic insects collected 5/83 from Volta Wildlife Area, which does not receive agricultural drainage water b) Detected in 1/14 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 Cold vapor-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				

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Killifish
FUNDULUS HETEROCLITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10609 Liver	a) 9 b) 9 c) 9 d) 9 e) 9 f) 9 g) 9 h) 9 i) 9 j) 9 k) 9 l) 9 m) 9 n) 9 o) 9 p) 9	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 n) Not given o) Not given p) Not given	a) 0.10+/-0.05 b) 0.37+/-0 c) 0.05+/-0.06 d) 0.05+/-0.03 e) 0.03+/-0.02 f) 0.07+/-0.08 g) 0.03+/-0.01 h) 0.12+/-0.14 i) 0.19+/-0.13 j) 0.36+/-0 k) 0.03+/-0.04 l) 0.04+/-0.03 m) 0.09+/-0.10 n) 0.06+/-0.05 o) 0.06+/-0.04 p) 0.04+/-0.04 ug/g	a) Non-aerated, 1.2% salinity, pH 6 b) Same, pH 8 c) Aerated, pH 6 d) Same, pH 8 e) Non-aerated, with stirring, pH 6 f) Same, pH 8 g) Aerated, with stirring, pH 6 h) Same, pH 8 i) Non-aerated, 0.3% salinity, pH 6 j) Same, pH 8 k) Aerated, pH 6 l) Same, pH 8 m) Non-aerated, with stirring, pH 6 n) Same, pH 8 o) Aerated, with stirring, pH 6 p) Same, pH 8 2 wk, Hg in sediment was 17.2-383.3 ug/g, mean 131.9+/-125 ug/g. Study of effects of salinity, aeration, stirring, pH on uptake. Sediments from Berry's Creek, Hackensack Meadowlands, NJ. Also reported data from another trial. New York, Long Island, East Hampton, Accabanac Harbor AAS
10610 Muscle	a) 9 b) 9 c) 9 d) 9 e) 9 f) 9 g) 9 h) 9 i) 9 j) 9 k) 9 l) 9 m) 9 n) 9 o) 9 p) 9	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 n) Not given o) Not given p) Not given	a) 0.05+/-0.03 b) 0.06+/-0 c) 0.03+/-0.01 d) 0.03+/-0.01 e) 0.04+/-0 f) 0.05+/-0.01 g) 0.03+/-0.01 h) 0.03+/-0.01 i) 0.08+/-0.05 j) 0.08+/-0 k) 0.03+/-0.02 l) 0.02+/-0.01 m) 0.05+/-0.01 n) 0.03+/-0.01 o) 0.05+/-0.01 p) 0.02+/-0 ug/g	a) Non-aerated, 1.2% salinity, pH6 b) Same, pH 8 c) Aerated, pH 6 d) Same, pH 8 e) Non-aerated, with stirring, pH 6 f) Same, pH 8 g) Aerated, with stirring, pH 6 h) Same, pH 8 i) Non-aerated, 0.3% salinity, pH 6 j) Same, pH 8 k) Aerated, pH 6 l) Same, pH 8 m) Non-aerated, with stirring, pH 6 n) Same, pH 8 o) Aerated, with stirring, pH 6 p) Same, pH 8 2 wk, Hg in sediment was 17.2-383.3 ug/g, mean 131.9+/-125 ug/g. Study of effects of salinity, aeration, stirring, pH on uptake. Sediments from Berry's Creek, Hackensack Meadowlands, NJ. Also reported data from another trial. New York, Long Island, East Hampton, Accabanac Harbor AAS

FISHES; MERCURY; MUSCLES; LIVER; AQUATIC; DELIBERATE EXPOSURE; WATER POLLUTION; METALS

Weis, P.; Weis, J.S.; Bogden, J. 1986 Environmental Pollution (Series A) 40:303-315

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Kittiwake, black-legged
RISSA TRIDACTYLA

Tissue	Cases Exposure Route	Range	Mean	General Information
10611 Eggs	a) 11 b) 10 c) 10	a) Not given b) Not given c) Not given	a) 0.13+/-0.03 ug/g b) 0.09+/-0.06 ug/g c) 0.10+/-0.04 ug/g Wet wt	a) East Finnmark b) West Finnmark c) Lofoten Collected 1983. Norway

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Knot
CALIDRIS CANUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10612 Feathers	a) 4 b) 33 c) 3 d) 1 e) 2 f) 20 g) 2	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.69+/-0.25 mg/kg b) 0.94+/-0.48 mg/kg c) 0.57+/-0.31 mg/kg d) 0.41 mg/kg e) 5.01+/-1.75 mg/kg f) 5.76+/-1.68 mg/kg g) 3.12+/-0.06 mg/kg	a) Juveniles, 1927-1969 b) Juveniles, 1979-1982 c) Adult Siberian, 1931-1982 d) Adult, 1930 e) Adults, 1964 (May bird)-1969 f) Adults, 1979-1982, Schiermonnikoog g) Adults, 1979-1982, Vlieland Age, year and location of collection. Samples collected prior to 1979 were from Zoological Museum, Amsterdam. Juvenile primaries and adult No. 8 primaries analyzed. 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10613 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Lapwing
VANELLUS VANELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10614 Muscle	2	Not given	0.12+/-0.05 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, southern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10615 Muscle	2	0.07-0.14 ppm Wet wt	0.11+/-0.04 ppm Wet wt	Juveniles, mean wt 205+/-7 g. Shot 7/76. Sweden, Vastergotland, Vanersborg NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Lobster

Tissue	Cases Exposure Route	Range	Mean	General Information
10616 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Lynx, pardel
LYNX PARDINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10617 Liver	5	0.25-2.32 ppm Wet wt	0.76 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10618 Muscle	5	0.14-0.94 ppm Wet wt	0.37 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Midge
CHIRONOMUS RIPARIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10619 Body		a) Not given b) Not given c) Not given d) Not given	a) 4.20+/-1.90 ppm b) 7.76+/-13.28 ppm c) 69.35+/-42.00 ppm d) 19.93+/-11.44 ppm Fresh wt	a) Larvae exposed to water level of 0.23+/-0.22 ppb, control b) Adults exposed as in a) c) Larvae exposed to water level of 5.50+/-2.85 ppb d) Adults exposed as in c). LC50's 4th instar larvae: Intermittent flow, 24, 48, 96 hr=1074, 316, 100 ppb. Static, 24, 48, 96 hr=1028, 750, 547 ppb. AAS

DELIBERATE EXPOSURE; AQUATIC; INSECTS; LARVAE; CHIRONOMIDS; BODY; MERCURY; WATER POLLUTION; ADULTS; BIOACCUMULATION

Rossaro, B.; Gaggino, G.F.; Marchetti, R. 1986 Bulletin of Environmental Contamination and Toxicology 37:402-406

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Monkey, crab-eating

Tissue	Cases Exposure Route	Range	Mean	General Information
10620 Hair	1	Not applicable	<1 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
10621 Body	a) 2 b) 4	a) 0.29-0.38 ppm b) Not detected-0.16 ppm Dry wt	a) 0.330 ppm b) 0.068 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 2/4 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. Detection limit not given. California, San Joaquin Valley Cold vapor-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

Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
10622 Hair	4	<1 ug/g	<1 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Mouse, wood
APODEMUS SYLVATICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10623 Liver	6	0.12-0.16 ppm Wet wt	0.14 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10624 Muscle	6	0.09-0.21 ppm Wet wt	0.15 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Mullet
MUGIL CEPHALICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10625 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

Mercury

7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Mussel
MYTILUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10626 Body	a) 405 b) 495 c) 495 d) 150	a) 0.22+/-0.03-0.58+/-0.05 ug/g b) 0.09+/-0.05-0.48+/-0.18 ug/g c) 0.28+/-0.04-0.58+/-0.06 ug/g d) 0.16+/-0.02-0.23+/-0.06 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
10627 Body		a) 0.13-0.62 mg/kg b) 0.25-1.35 mg/kg c) 0.16-1.28 mg/kg d) 0.15-0.64 mg/kg e) 0.26-0.97 mg/kg f) 0.18-0.99 mg/kg g) 0.30-0.57 mg/kg h) <0.13-0.36 mg/kg i) 0.81-0.20 mg/kg j) 0.18-0.68 mg/kg Dry 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 i) Not given j) Not given	a) 1979, April b) October c) 1980, April d) October e) 1981, April f) October g) 1982, April h) October i) 1983, April j) October Extremes from sampling locations distributed over the Waddenzee, coastal North Sea and Ems' estuaries, Western and Eastern Scheldt. Range of medians was 0.26-0.57 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10628 Body	21	0.02-0.07 mg/kg Wet wt	0.04 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

Myctophid
DIAPHUS SUBORBITALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10629 Body, whole	10	Not applicable	0.05 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

Otter
LUTRA LUTRA

Tissue	Cases Exposure Route	Range	Mean	General Information
10630 Liver	5	3.92-17.48 ppm Wet wt	8.28 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10631 Muscle	5	1.25-1.41 ppm Wet wt	1.33 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10632 Body		Not given	0.029+/-0.017 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, Pacific
CRASSOSTREA GIGAS

Tissue	Cases Exposure Route	Range	Mean	General Information
10633 Body	a) 328 b) 226	a) <0.01-0.84 ug/g b) <0.01-1.26 ug/g Wet wt	a) 0.26 ug/g b) 0.23 ug/g Wet wt	a) Collected live from 8 sites in bay. 13 groups with <0.01 not included in mean b) Collected from 10 stalls in Lau Fau Shan Market. 3 groups with <0.01 not included in mean Range 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
10634 Feathers	10	Not given	0.970+/-0.324 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=0.02 ppm wet wt. California AAS
10635 Kidney	10	Not given	0.678+/-0.312 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=0.02 ppm wet wt. California AAS

(next page)

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Pelican, brown
PELECANUS OCCIDENTALIS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10636 Liver	10	Not given	0.751+/-0.384 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=0.02 ppm. 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
10637 Muscle	145	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.81+/-0.89 ppm b) 0.23+/-0.08 ppm c) 0.43+/-0.19 ppm d) 0.45+/-0.22 ppm e) 0.25+/-0.12 ppm f) 0.23+/-0.25 ppm g) 0.50+/-0.61 ppm Wet wt	a) Lake Mjosa b) Lake Sillongen c) Ottsjoen d) Hersjoen e) Matfartjern f) Losna g) Total Collecdted in 1979-80. Levels correlated with age. Norway AAS

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

Tissue	Cases Exposure Route	Range	Mean	General Information
10638 Muscle	18	80-500 ng/g Wet wt	Not given	Collected 5/74 at Rye Meads from lagoon receiving treated sewage effluent. Estimated from graph. Hg concentration increased with increasing size or age. Methylmercury predominated. Great Britain, England, Hertfordshire AAS

FISHES; ENVIRONMENTAL EXPOSURE; MERCURY; WATER POLLUTION; UNITED KINGDOM; SEWAGE; MUSCLES
Bull, K.R.; Dearsley, A.F.; Inskip, M.H. 1981 Environmental Pollution (Series A) 25:229-240

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Pig, miniature

Tissue	Cases Exposure Route	Range	Mean	General Information
10639 Hair	1	Not applicable	<1 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

Pigeon, wood
COLUMBA PALUMBUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10640 Muscle	10	Not given	<0.007 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, southern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10641 Muscle	10	Not detected-0.25 ppm Wet wt	0.01+/-0.01 ppm Wet wt	Adults, mean wt 506+/-27 g. Shot 7/76. Detection limit not given. Sweden, Vastergotland, Vanersborg NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Pike

Tissue	Cases Exposure Route	Range	Mean	General Information
10642 Body	a) 15 b) 82 c) 34	a) Not given b) Not given c) Not given	a) 0.23 mg/kg b) 0.53 mg/kg c) 0.08 mg/kg Wet wt	a) Unpolluted lake, northern Sweden b) Unpolluted lake, central Sweden c) Polluted lake, mine water Low level in fish from polluted lake despite high levels in sediment. High Zn, Pb in water and sediment. Strong negative correlation between degree of metal in sediment and amount Hg in fish. Sweden Calculated, linear regression

ENVIRONMENTAL EXPOSURE; BODY; MERCURY; AQUATIC; WATER POLLUTION; FISHES; MINING; SWEDEN
Lindestrom, L.; Grahn, O. 1982 Ambio 11(6):359-361

Tissue	Cases Exposure Route	Range	Mean	General Information
10643 Muscle	16	80-440 ng/g Wet wt	Not given	Collected 5/74 at Rye Meads from drainage ditch receiving treated sewage effluent. Estimated from graph. Hg concentration increased with increasing size or age. Methylmercury predominated. Great Britain, England, Hertfordshire AAS

FISHES; ENVIRONMENTAL EXPOSURE; MERCURY; WATER POLLUTION; UNITED KINGDOM; SEWAGE; MUSCLES
Bull, K.R.; Dearsley, A.F.; Inskip, M.H. 1981 Environmental Pollution (Series A) 25:229-240

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
10644 Body	19 b) 3	a) 0.04-1.1 mg/kg b) 0.25-0.43 mg/kg Wet wt	a) 0.52 mg/kg b) 0.33 mg/kg Wet wt	a) Collected in 1977, Lake IJssel b) Collected in 1982-84, Hollands Diep 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10645 Muscle	43	44-1039 ug/kg Wet wt	314 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.56X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Tissue	Cases Exposure Route	Range	Mean	General Information
10646 Muscle	40	Not given	1.12+/-0.54 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Levels correlated with age of animal. Norway AAS

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

Tissue	Cases Exposure Route	Range	Mean	General Information
10647 Muscle	a) 35 b) 47 c) 70 d) 17 e) 46	a) 0.50-1.74 mg/kg b) 0.23-1.51 mg/kg c) 0.85-4.06 mg/kg d) 0.63-1.85 mg/kg e) 0.30-1.71 mg/kg Wet wt	a) 0.92 mg/kg b) 0.60 mg/kg c) 1.80 mg/kg d) 1.19 mg/kg e) 0.70 mg/kg Wet wt	Collected at Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Kyrkosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir fill in 1980 Samples collected 1980-84. Total Hg measured. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Mercury

7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Plaice
PLEURONECTES PLATESSA

Tissue	Cases Exposure Route	Range	Mean	General Information
10648 Body	14	0.03-0.24 mg/kg Wet wt	0.09 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected near the coast of Holland, 1978. 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

Plover, golden-, greater
PLUVIALIS APRICARIA

Tissue	Cases Exposure Route	Range	Mean	General Information
10649 Muscle	5	Not given	0.11+/-0.02 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10650 Muscle	5	0.07-0.14 ppm Wet wt	0.11+/-0.03 ppm Wet wt	Adults, mean wt 189+/-7 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Ptarmigan
LAGOPUS MUTUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10651 Muscle	8	Not detected	Not detected	Adults, mean wt 459+/-14 g. Shot 6/76-7/76. Detection limit not given. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Ptarmigan, willow
LAGOPUS LAGOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10652 Muscle	13	Not given	<0.007 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Puffin, Atlantic
FRATERCULA ARCTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10653 Eggs	a) 11 b) 10 c) 10 d) 20	a) Not given b) Not given c) Not given d) Not given	a) 0.16+/-0.06 ug/g b) 0.21+/-0.06 ug/g c) 0.16+/-0.07 ug/g d) 0.18+/-0.13 ug/g Wet wt	a) East Finnmark b) West Finnmark c) South Troms/North Nordland d) Lofoten Collected 1983. Norway

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING
Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Rabbit

Tissue	Cases Exposure Route	Range	Mean	General Information
10654 Hair	6	<1 ug/g	<1 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Rabbit

Tissue	Cases Exposure Route	Range	Mean	General Information
10655 Liver	5	0.07-0.16 ppm Wet wt	0.11 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10656 Muscle	5	0.05-0.16 ppm Wet wt	0.10 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Rat

Tissue	Cases Exposure Route	Range	Mean	General Information
10657 Hair	2	2.5-2.5 ug/g	2.5 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Rat, brown
RATTUS NORVERGICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10658 Liver	5	0.29-0.30 ppm Wet wt	0.29 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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
10659 Muscle	5	0.03-0.14 ppm Wet wt	0.07 ppm Geometric Wet wt	Collected 6/82-6/83 in stabilized sands of Donana National Park. Detection limit 0.01 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

Razorbill
ALCA TORDA

Tissue	Cases Exposure Route	Range	Mean	General Information
10660 Eggs	9	Not given	0.17+/-0.09 ug/g Wet wt	Collected in West Finnmark, 1983. Norway

CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING

Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Redshank, Icelandic
TRINGA TOTANUS ROBUSTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10661 Feathers		a) Not given b) Not given c) Not given	a) 1.07+/-0.35 mg/kg b) 6.54+/-1.88 mg/kg c) 10.26+/-3.78 mg/kg	a) Juveniles, 1979-1982 b) Adults, 1979-1982, Schiermonnikoog c) Adults, 1979-1982, Vlieland Age, year and location of collection. Juvenile primaries and adult No. 8 primaries analyzed. Dutch Wadden Sea NA
10662 Liver	3	5.3-7.5 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

Redshank, spotted
TRINGA ERYTHROPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10663 Muscle	4	Not given	0.45+/-0.12 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10664 Muscle	4	0.34-0.62 ppm Wet wt	0.46+/-0.12 ppm Wet wt	Adults, mean wt 131+/-11 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Redwing
TURDUS ILIACUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10665 Muscle	5	Not given	0.09+/-0.02 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10666 Muscle	5	0.06-0.10 ppm Wet wt	0.08+/-0.02 ppm Wet wt	Adults, mean wt 59+/-9 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Roach
RUTILUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10667 Muscle	a) 35 b) 47 c) 70 d) 17 e) 46	a) 0.22-0.41 mg/kg b) 0.16-0.40 mg/kg c) 0.43-1.17 mg/kg d) 0.63-1.20 mg/kg e) 0.24-0.49 mg/kg Wet wt	a) 0.33 mg/kg b) 0.29 mg/kg c) 0.77 mg/kg d) 0.78 mg/kg e) 0.35 mg/kg Wet wt	Collected at Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Kyrokosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir fill in 1980 Samples collected 1980-84. Total Hg measured. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Roach
RUTILUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10668 Muscle	a) 30 b) 23	a) 20-130 ng/g b) 100-320 ng/g Wet wt	a) Not given b) Not given	a) Collected 12/74 from River Lee b) Collected 5/74 at Rye Meads from lagoon receiving treated sewage effluent Estimated from graph. Methylmercury predominated. Fish from b) showed positive correlation between Hg content and size and age. Fish from a) showed no increase of Hg with age of size. Great Britain, England, Hertfordshire AAS

FISHES; ENVIRONMENTAL EXPOSURE; MERCURY; WATER POLLUTION; UNITED KINGDOM; SEWAGE; MUSCLES
Bull, K.R.; Dearsley, A.F.; Inskip, M.H. 1981 Environmental Pollution (Series A) 25:229-240

Ruff
PHILOMACHUS PUGNAX

Tissue	Cases Exposure Route	Range	Mean	General Information
10669 Muscle	10	Not given	0.23+/-0.05 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10670 Muscle	10	0.14-0.38 ppm Wet wt	0.23+/-0.07 ppm Wet wt	Adults, mean wt 97+/-5 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Samarugo
VALENCIA HISPANICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10671 Body	a) 28 b) 57	a) Not given b) Not given	a) 85.0+/-21.5 ppb b) 92.0+/-38.3 ppb	a) Males b) Females Collected summer, 1984 from river marshes. Detection limit 2.6 ng. Spain, Guadalquivir River AAS

ENVIRONMENTAL EXPOSURE; MERCURY; FISHES; AQUATIC; BODY; SPAIN; ;RIVERS; WATER POLLUTION; INDUSTRIAL POLLUTION; BIOLOGICAL MONITORING
Rincon, F.; Zurera, G.; Pozo-Lora, R. 1986 Bulletin of Environmental Contamination and Toxicology 37:253-257

Sandpiper, broad-billed
LIMICOLA FALCINELLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10672 Muscle	1	Not applicable	0.32 ppm Wet wt	Adult, wt 40 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Sandpiper, wood
TRINGA GLAREOLA

Tissue	Cases Exposure Route	Range	Mean	General Information
10673 Muscle	5	Not given	0.26+/-0.10 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10674 Muscle	5	0.18-0.42 ppm Wet wt	0.26+/-0.09 ppm Wet wt	Adults, mean wt 59+/-4 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Sauger
STIZOSTEDION CANADENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
10675 Muscle	26	271-1585 ug/kg Wet wt	743 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 3.71X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Scallop

Tissue	Cases Exposure Route	Range	Mean	General Information
10676 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

Sea lion, California
ZALOPHUS CALIFORNIANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10677 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, Australian fur
ARCTOCEPHALUS PUSILLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10678 Brain	16	Not detected-2.53 ug/g Wet wt	0.70+/-0.70 ug/g Wet wt	Tagged seals of known age, 6-144 mo. Regression analyses showed significant correlation between levels and age ($p<0.005$), suggesting bioaccumulation. Detection limits not given. Australia, Bass Strait, 1.5 km from Western Port Bay AAS

(next page)

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Seal, Australian fur
ARCTOCEPHALUS PUSILLUS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10679 Hair	16	1.07-19.8 ug/g Dry wt	9.59+/-5.89 ug/g Dry wt	Tagged seals of known age, 6-144 mo. Regression analyses showed significant correlation between levels and age ($p<0.005$), suggesting bioaccumulation. Detection limits not given. Australia, Bass Strait, 1.5 km from Western Port Bay AAS
10680 Kidney	16	0.13-1.71 ug/g Wet wt	0.63+/-0.43 ug/g Wet wt	Tagged seals of known age, 6-144 mo. Australia, Bass Strait, 1.5 km from Western Port Bay AAS
10681 Liver	16	0.97-170 ug/g Wet wt	62.3+/-44.7 ug/g Wet wt	Tagged seals of known age, 6-144 mo. Significant positive correlation ($p<0.001$) between levels and age suggests bioaccumulation throughout life. Australia, Bass Strait, 1.5 km from Western Port Bay AAS
10682 Muscle	16	0.09-1.90 ug/g Wet wt	0.91+/-0.52 ug/g Wet wt	Tagged seals of known age, 6-144 mo. Levels reached a plateau in 4-5 yr olds and were significantly correlated with age in juveniles ($p<0.001$) but not in adults. Australia, Bass Strait, 1.5 km from Western Port Bay AAS
10683 Spleen	16	Not detected-3.80 ug/g Wet wt	1.29+/-0.92 ug/g Wet wt	Tagged seals of known age, 6-144 mo. Regression analyses showed significant correlation between levels and age ($p<0.005$), suggesting bioaccumulation. Detection limits not given. Australia, Bass Strait, 1.5 km from Western Port Bay AAS

BIOACCUMULATION; ENVIRONMENTAL EXPOSURE; SEALS; AQUATIC; MERCURY; BRAIN; HAIR; KIDNEYS; LIVER; MUSCLES; SPLEEN; JUVENILES; ADULTS

Bacher, G.J. 1985 Bulletin of Environmental Contamination and Toxicology 35:490-495

Seal, gray
HALICHOERUS GRYPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10684 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Seal, harbor
PHOCA VITULINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10685 Kidney	15	0.15-1.09 ug/g Wet wt	0.55+/-0.26 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 AAS
10686 Liver	15	0.11-11.8 ug/g Wet wt	2.86+/-3.11 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 AAS

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

Seal, harp
PHOCA GROENLANDICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10687 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, northern fur
CALLORHINUS URSINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10688 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Shad, American
ALOSA SAPIDISSIMA

Tissue	Cases Exposure Route	Range	Mean	General Information
10689 Gonads	5	0.015-0.085 ug/g	0.225 ug/g	Collected May, 1979, waters of Hartford County. Detection limit 0.001. 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
10690 Muscle	5	0.066-0.218 ug/g	0.118 ug/g	Collected May, 1979, waters of Hartford County. Detection limit 0.001. 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

Shad, gizzard
DOROSOMA CEPEDIANUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10691 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) 0.06 ug/g b) 0.06 ug/g c) 0.07 ug/g d) 0.07 ug/g e) 0.10 ug/g f) 0.11 ug/g g) 0.10 ug/g h) 0.06 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Shag
PHALACROCORAX ARISTOTELIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10692 Eggs	a) 10 b) 10	a) Not given b) Not given	a) 0.13+/-0.08 ug/g b) 0.17+/-0.05 ug/g Wet wt	a) East Finnmark b) Lofoten Collected 1983. Norway GC
CHLORINE ORGANIC COMPOUNDS; NORWAY; ENVIRONMENTAL EXPOSURE; MERCURY; BIRDS; HEXACHLOROBENZENE; POLYCHLORINATED BIPHENYLS; AQUATIC; EGGS; BIOLOGICAL MONITORING Barrett, R.T.; Skaare, J.U.; Norheim, G.; Vader, W.; Froslie, A. 1985 Environmental Pollution (Series A) 39:79-93				

Shearwater, Cory's
CALONECTRIS DIOMEDEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10693 Adipose	a) 5 b) 5 c) 5	a) Not given b) Not given c) Not given	a) 0.63+/-0.34 ug/g b) 0.87+/-0.17 ug/g c) 1.13+/-0.25 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
10694 Brain	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 1.95+/-0.70 ug/g b) 5.45+/-1.79 ug/g c) 6.82+/-1.54 ug/g d) 3.43+/-1.26 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
10695 Eggs	a) 20 b) 10 c) 11 d) 2	a) Not given b) Not given c) Not given d) 4.78-5.76 ug/g Dry wt	a) 2.09+/-1.04 ug/g b) 7.29+/-1.94 ug/g c) 5.90+/-1.45 ug/g d) 5.27 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)

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Shearwater, Cory's
CALONECTRIS DIOMEDEA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10696 Kidney	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 4.63+/-1.48 ug/g b) 14.96+/-4.51 ug/g c) 17.79+/-10.64 ug/g d) 18.89+/-5.98 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
10697 Liver	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 12.53+/-2.28 ug/g b) 49.69+/-23.08 ug/g c) 86.16+/-99.16 ug/g d) 74.85+/-50.94 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
10698 Muscle	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 2.56+/-0.75 ug/g b) 4.76+/-1.48 ug/g c) 7.20+/-1.55 ug/g d) 5.91+/-1.03 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
10699 Uropygial gland	a) 3 b) 5 c) 5 d) 5	a) Not given b) Not given c) Not given d) Not given	a) 1.25+/-0.34 ug/g b) 2.21+/-0.25 ug/g c) 2.95+/-0.13 ug/g d) 2.11+/-0.72 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Shrimp
CRANGON CRANGON

Tissue	Cases Exposure Route	Range	Mean	General Information
10700 Body	21	0.04-0.10 mg/kg Wet wt	0.07 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

Smelt
OSMERUS EPERLANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10701 Muscle	20	Not given	0.30+/-0.18 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Levels correlated with age of animal. Norway AAS

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

Snapper
CHRYSOPHRYS AURATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10702 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Snipe, common
GALLINAGO GALLINAGO

Tissue	Cases Exposure Route	Range	Mean	General Information
10703 Muscle	5	Not given	0.31+/-0.06 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10704 Muscle	5	0.25-0.42 ppm Wet wt	0.30+/-0.07 ppm Wet wt	Adults, mean wt 98+/-7 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Sole
SOLEA SOLEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10705 Body	22	0.04-0.17 mg/kg Wet wt	0.09 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

Squid
TODARODES PACIFICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10706 Body, whole	5	Not given	0.07+/-0.04 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Starling
STURNUS VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10707 Muscle	a) 4 b) 50 c) 50 d) 28 e) 19 f) 24	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.100+/-0.082 ppm b) 0.102+/-0.083 ppm c) 0.062+/-0.032 ppm d) 0.127+/-0.051 ppm e) 0.025+/-0.010 ppm f) 0.054+/-0.021 ppm Wet wt	a) 1967 b) 1978 c) 1979 d) 1981 e) 1982 f) 1983 Years collected from nests, immediately prior to flight. Detection limit 10 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
10708 Muscle	10	Not given	0.03+/-0.02 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, southern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10709 Muscle	10	0.01-0.09 ppm Wet wt	0.03+/-0.03 ppm Wet wt	8 adults, 2 juveniles, mean wt 81+/-8 g. Shot 7/76. Sweden, Vastergotland, Vanersborg NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Stilt, black-necked
HIMANTOPUS MEXICANUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10710 Liver	a) 5 b) 5 c) 5	a) 0.1-0.2 ppm b) 0.06-0.2 ppm c) 0.07-0.2 ppm Wet wt	a) 0.1 ppm b) 0.1 ppm c) 0.1 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 0.2 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

Sucker, longnose
CATOSTOMUS CATOSTOMUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10711 Muscle	46	62-548 ug/kg Wet wt	245 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.22X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Sucker, northern redhorse
MOXOSTOMA MACROLEPIDOTUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10712 Muscle	23	212-619 ug/kg Wet wt	368 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.84X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
10713 Muscle	27	28-659 ug/kg Wet wt	313 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.56X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Sunfish
LEPOMIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10714 Body, whole		a) Not given b) Not given c) Not given d) Not given	a) 0.18 ug/g b) 0.12 ug/g c) 0.23 ug/g d) 0.22 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

Sunfish, redbreast
LEPOMIS AURITUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10715 Muscle	2	0.072-0.093 mg/kg Wet wt	0.083 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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Sunfish, spotted
LEPOMIS PUNCTATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10716 Muscle	2	0.031-0.033 mg/kg Wet wt	0.032 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
10717 Liver	a) 4 b) 5	a) Not detected-0.03 ppm b) Not detected Wet wt	a) 0.01 ppm b) Not detected 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10718 Muscle	6	Not given	0.09+/-0.03 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Teal, green-winged
ANAS CRECCA

Tissue	Cases Exposure Route	Range	Mean	General Information
10719 Muscle	6	0.10-0.49 ppm Wet wt	0.10+/-0.04 ppm Wet wt	4 adults, 2 juveniles, mean wt 345+/-31 g. Shot 6/76-7/76 and 6/77-9/77. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Thrush, song
TURDUS PHILOMELOS

Tissue	Cases Exposure Route	Range	Mean	General Information
10720 Muscle	1	Not given	0.01 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, southern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10721 Muscle	1	Not applicable	0.02 ppm Wet wt	Adult, wt 63 g. Shot 7/76. Sweden, Vastergotland, Vanersborg NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Trout, brown
SALMO TRUTTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10722 Muscle	18	Not given	1.29+/-0.44 ppm Wet wt	Collected, Lake Mjosa, in 1979-80. Lake contaminated with Hg. Levels correlated with age of animal. Norway AAS

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

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Turtle, snapping
CHELYDRA SERPENTINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10723 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) 0.44+/-0.14 ppm b) 0.56+/-0.44 ppm c) 0.55+/-0.26 ppm d) 0.41+/-0.13 ppm e) 0.39+/-0.22 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 0.02 ppm. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ
10724 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) 0.90+/-0.48 ppm b) 0.46+/-0.18 ppm c) 1.28+/-0.79 ppm d) 1.27+/-0.34 ppm e) 0.60+/-0.40 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 0.02 ppm. New Jersey; Maryland Lowered lipid content, reduced growth in animals from brackish-water area in NJ

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
10725 Muscle	a) 8 b) 35	a) 228-625 ug/kg b) 140-1202 ug/kg Wet wt	a) 369 ug/kg b) 645 ug/kg Wet wt	a) Upstream North Saskatchewan River (NSR) b) Central-east Alberta segment of NSR Collected 1982. Mercury bioconcentration factor was 3.22X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Whimbrel
NUMENIUS PHAEOPUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10726 Muscle	5	Not given	0.11+/-0.03 ppm Wet wt	Measured in pectoral muscle of common prey species for peregrine, northern Sweden. Estimated from graph. Sweden

MERCURY; BIOACCUMULATION; BIRDS; ENVIRONMENTAL EXPOSURE; TERRESTRIAL; FEATHERS; WATERFOWL; AQUATIC; MUSCLES; SWEDEN; FINLAND; SCOTLAND
Lindberg, P.; Odsjo, T. 1983 Environmental Pollution (Series B) 5:297-318

Tissue	Cases Exposure Route	Range	Mean	General Information
10727 Muscle	4	0.07-0.14 ppm Wet wt	0.12+/-0.03 ppm Wet wt	Adults, mean wt 350+/-42 g. Shot 6/76-7/76. Sweden, Norrbotten, Gallivare NA

MUSCLES; BIRDS; DUCKS; AQUATIC; TERRESTRIAL; ENVIRONMENTAL EXPOSURE; SWEDEN; POLYCHLORINATED BIPHENYLS; MERCURY; DDT; CHLORINE ORGANIC COMPOUNDS; DIETS; WATERFOWL; EGGS
Lindberg, P.; Odsjo, T.; Reutergardh, L. 1985 Archives of Environmental Contamination and Toxicology 14:203-212

Zoobenthos

Tissue	Cases Exposure Route	Range	Mean	General Information
10728 Body	a) 13 b) 26 c) 22 d) 12 e) 24	a) 0.008-0.155 mg/kg b) 0.003-0.112 mg/kg c) 0.020-0.231 mg/kg d) 0.022 mg/kg e) 0.010-0.139 mg/kg Wet wt	a) 0.055 mg/kg b) 0.045 mg/kg c) 0.083 mg/kg d) 0.205 mg/kg e) 0.056 mg/kg Wet wt	Collected at Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Kyrokosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir fill in 1980 Sampling performed manually from littoral area, 1980-84. Samples included trichoptera larvae and some dragonfly larvae. Total Hg measured. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Mercury
7439-97-6
Hg
AtW 200.59, MP -38.87 C, BP 356.72 C, VP 2X10(E-3) mm Hg at 25 C, 100 mm Hg at 260 C

Zooplankton

Tissue	Cases Exposure Route	Range	Mean	General Information
10729 Body	a) 9 b) 8 c) 8 d) 7 e) 26	a) 0.12-0.39 mg/kg b) 0.11-0.55 mg/kg c) 0.13-0.73 mg/kg d) 0.19-0.65 mg/kg e) 0.05-0.43 mg/kg Dry wt	a) 0.22 mg/kg b) 0.28 mg/kg c) 0.30 mg/kg d) 0.42 mg/kg e) 0.24 mg/kg Dry wt	a) Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Krykosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir filled in 1970 Samples collected mainly from littoral areas with some from pelagial areas, 1980-84. Total Hg measured. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION

Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
10730 Brain	a) 10 b) 5 c) 5 d) 3 e) 3 f) 3 g) 4 Number of analyses Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.03 mg/kg b) 0.28 mg/kg c) 0.67 mg/kg d) 0.50 mg/kg e) 1.43 mg/kg f) 0.42 mg/kg g) 1.81 mg/kg Wet wt	a) Controls, 0 time, no Hg or Se supplement b) Methyl-Hg, 2.5 mg/kg wet feed, day 8 c) Day 32 d) Methyl-Hg+Se, 2.5 mg/kg of each, day 8 e) Day 32 f) Methyl-Hg+Se, 2.5 and 5 mg/kg, respectively, day 8 g) Day 32. Norway AAS
10731 Liver	a) 9 b) 5 c) 4 d) 3 e) 4 f) 3 g) 4 Number of analyses Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.04+/-0.01 mg/kg b) 0.62+/-0.13 mg/kg c) 0.65+/-0.08 mg/kg d) 0.42+/-0.10 mg/kg e) 0.96+/-0.18 mg/kg f) 0.38+/-0.10 mg/kg g) 0.84+/-0.15 mg/kg Wet wt	a) Controls, 0 time, no Hg or Se supplement b) Methyl-Hg, 2.5 mg/kg wet feed, day 8 c) Day 32 d) Methyl-Hg+Se, 2.5 mg/kg of each, day 8 e) Day 32 f) Methyl-Hg+Se, 2.5 and 5 mg/kg, respectively, day 8 g) 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

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
10732 Liver	Ingestion	0.25-0.50 mg/kg	Not given	Days 0 and 8. Level at end of uptake period (32 d) was approximately 0.57, at end of depletion (64 d) was 0.20 mg/kg. 2 mg Hg/kg food. Some values estimated from graph. Norway, Bergen, Masfjord AAS

DELIBERATE EXPOSURE; AQUATIC; FISHES; MERCURY; METHYLMERCURY; LIVER; MUSCLES; WATER POLLUTION; NORWAY; INGESTION; FOOD CONTAMINATION
Julshamn, K.; Ringdal, O.; Braekkan, O.R. 1982 Bulletin of Environmental Contamination and Toxicology 29:544-549

Tissue	Cases Exposure Route	Range	Mean	General Information
10733 Muscle	a) 10 b) 5 c) 4 d) 3 e) 3 f) 4 g) 4 Number of analyses Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given g) Not given	a) 0.03+/-0.01 mg/kg b) 0.15+/-0.02 mg/kg c) 0.79+/-0.08 mg/kg d) 0.10+/-0.02 mg/kg e) 0.88+/-0.06 mg/kg f) 0.16+/-0.06 mg/kg g) 0.89+/-0.21 mg/kg Wet wt	a) Controls, 0 time (also day 32), no Hg or Se supplement b) Methyl-Hg, 2.5 mg/kg wet feed, day 8 c) Day 32 d) Methyl-Hg+Se, 2.5 mg/kg of each, day 8 e) Day 32 f) methyl-Hg+Se, 2.5 and 5 mg/kg, respectively, day 8 g) 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10734 Muscle	Ingestion	0.05-1.0 mg/kg	Not given	Days 0 and 40. Level at end of uptake period (32 d) was 0.7 mg/kg, at end of depletion (64 d) was still approx 1.0 mg/kg. 2 mg/kg food. Some values estimated from graph. Norway, Bergen, Masfjord AAS

DELIBERATE EXPOSURE; AQUATIC; FISHES; MERCURY; METHYLMERCURY; LIVER; MUSCLES; WATER POLLUTION; NORWAY; INGESTION; FOOD CONTAMINATION
Julshamn, K.; Ringdal, O.; Braekkan, O.R. 1982 Bulletin of Environmental Contamination and Toxicology 29:544-549

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63
Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
10735 Adipose	a) 4 b) 4 c) 2 d) 1	a) 1.1-5.7% b) 0.72-0.82% c) 1.2-3.2% d) Not applicable	a) 3.9% b) 0.78% c) 2.2% d) 0.96%	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 methylmercury in whole body. Calculated means. Pacific Ocean AAS
10736 Body, whole	a) 4 b) 4 c) 2 d) 1	a) 0.404-2.58 mg/kg b) 3.06-3.58 mg/kg c) 2.83-3.13 mg/kg d) Not applicable	a) 1.37 mg/kg b) 3.43 mg/kg c) 2.98 mg/kg d) 3.88 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
10737 Liver	a) 4 b) 4 c) 2 d) 1	a) 4.3-6.1% b) 1.4-2.8% c) 2.1-3.2% d) Not applicable	a) 5.3% b) 2.3% c) 2.7% d) 1.7%	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 methylmercury in whole body. Calculated means. Pacific Ocean AAS
10738 Muscle	a) 4 b) 4 c) 2 d) 1	a) 82-87% b) 90-91% c) 88-91% d) Not applicable	a) 85% b) 91% c) 90% d) 93%	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 methylmercury 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

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Earthworm (E. foetida)
EISENIA FOETIDA

Tissue	Cases Exposure Route	Range	Mean	General Information
10739 Body		a) Not given b) Not given c) Not given	a) 13 ppm b) 27 ppm c) 85 ppm Wet wt	a) Controls b) 1 ppm c) 5 ppm Exposed 12 wk in soil treated with the chloride. Higher dose inhibited regeneration. Composite samples from survivors. Initial numbers were 36, 40, 120, respectively. Soil levels were 0.63, 1.3, 3.8 ppm wet wt, respectively. Common names include barnyard worm, manure worm, tiger worm. Maryland AAS

BODY; EARTHWORMS; TERRESTRIAL; DELIBERATE EXPOSURE; MARYLAND; METAL POISONING; METHYL MERCURY COMPOUNDS; METALS; BIOACCUMULATION; LAND POLLUTION; SOILS

Beyer, W.N.; Cromartie, E.; Moment, G.B. 1985 Bulletin of Environmental Contamination and Toxicology 35:157-162

Fish (A. fallax)
ALOXA FALLAX NILOTICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10740 Muscle		Not given	0.333 mg/kg Wet wt	Collected 6/80 Kastela Bay, 25 cm long, omnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS

Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Fish (B. boops)
BOOPS BOOPS

Tissue	Cases Exposure Route	Range	Mean	General Information
10741 Muscle		a) Not given b) Not given	a) 0.157 mg/kg b) 0.102 mg/kg Wet wt	a) Southern Adriatic, 16 cm long, collected 1980-81 b) Kastela Bay, 16 cm long, 1 sample, collected 10/80 Omnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS

Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Fish (B. gatorugine)
BLENNIUS GATORUGINE

Tissue	Cases Exposure Route	Range	Mean	General Information
10742 Muscle		a) 0.127-0.175 mg/kg b) 0.179-0.402 mg/kg Wet wt	a) 0.254 mg/kg [sic] b) 0.254 mg/kg Wet wt	a) Collected 7/80, 10-15 cm long, 4 samples b) Collected 10/80, 12-17 cm long, 5 samples Kastela Bay, omnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Fish (D. annularis)
DIPLODUS ANNULARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10743 Muscle		a) 0.395-0.509 mg/kg b) Not given c) Not given d) 0.922-1.448 mg/kg Wet wt	a) Not given b) 0.620 mg/kg c) 0.860 mg/kg d) 1.250 mg/kg Wet wt	a) Northern Adriatic, 14-15 cm long, 3 samples, collected 1980-81 b) Southern Adriatic, 14 cm long, collected 1980-81 c) Kastela Bay, 10 cm long, collected 6/80 d) Kastela Bay, 13-16 cm long, 3 samples, collected 10/80 Omnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Fish (E. encrachicolus)
ENGRAULIS ENCRACHICOLUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10744 Muscle		Not given	0.281 mg/kg Wet wt	Collected 6/80 Kastela Bay, 10 cm long, omnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Fish (G. cobitis)
GOBIUS COBITIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10745 Muscle		0.841-0.797 mg/kg Wet wt	0.819 mg/kg Wet wt	Collected 10/80 Kastela Bay, 14-20 cm long, 2 samples, herbivorous fish species. Mean calculated from table. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Fish (G. niger)
GOBIUS NIGER

Tissue	Cases Exposure Route	Range	Mean	General Information
10746 Muscle		a) Not given b) 0.120-0.381 mg/kg c) 0.181-0.269 mg/kg Wet wt	a) 0.372 mg/kg b) 0.198 mg/kg c) 0.239 mg/kg Wet wt	a) Collected 6/80, 10 cm long b) Collected 7/80, 5-10 cm long, 7 samples c) Collected 10/80, 6-12 cm long, 5 samples Herbivorous fish species, Kastela Bay. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Fish (L. brun)
LASTOVICIA BRUN

Tissue	Cases Exposure Route	Range	Mean	General Information
10747 Muscle		Not given	0.865 mg/kg Wet wt	Kastela Bay, 10 cm long, collected 6/80. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Fish (M. barbatus)
MULLUS BARBATUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10748 Muscle		a) Not given b) 0.427-0.243 mg/kg c) Not given d) 0.294-0.705 mg/kg Wet wt	a) 0.51 mg/kg b) Not given c) 0.460 mg/kg d) 0.501 mg/kg Wet wt	a) Northern Adriatic, 12 cm long, collected 1980-81 b) Southern Adriatic, 16-17 cm long, collected 1980-81 c) Kastela Bay, 15 cm long, collected 6/80 d) Kastela Bay, 14-19 cm long, collected 11/80 Carnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Fish (P. erythrinus)
PAGELLUS ERYTHRINUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10749 Muscle		a) Not given b) 0.567-1.019 mg/kg c) Not given d) 0.287-0.794 mg/kg Wet wt	a) 0.244 mg/kg b) Not given c) 0.956 mg/kg d) 0.561 mg/kg Wet wt	a) Northern Adriatic, 14 cm long, collected 1980-81 b) Southern Adriatic, 16-20 cm long, collected 1980-81 c) Kastela Bay, 15 cm long, collected 6/80 d) Kastela Bay, 13-17 cm long, collected 11/80, 4 samples Carnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Fish (S. porcus)
SCORPAENA PORCUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10750 Muscle		Not given	1.247 mg/kg Wet wt	Kastela Bay, 15 cm long, 1 sample, collected 10/80. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63
Fish (S. vulgaris)
SOLEA VULGARIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10751 Muscle		a) 0.065-0.185 mg/kg b) Not given c) 0.832-0.844 mg/kg Wet wt	a) Not given b) 1.088 mg/kg c) 0.838 mg/kg Wet wt	a) Northern Adriatic, 27-28 cm long, collected 1980-81 b) Kastela Bay, 15 cm long, collected 6/80 c) Kastela Bay, 13-17 cm long, 2 samples, collected 10/80, mean calculated from table Omnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC

FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS
Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39

Goldeneye
BUCEPHALA CLANGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10752 Muscle	a) 6 b) 8 c) 10 d) 5	a) 0.18-0.42 mg/kg b0 0.01-0.30 mg/kg c) 0.14-0.95 mg/kg d) 0.08-0.16 mg/kg Wet wt	a) 0.30 mg/kg b) 0.13 mg/kg c) 0.38 mg/kg d) 0.10 mg/kg Wet wt	a) Shot at Lake Pihlajavesi b) Lake Seinajarvi b) Kalajarvi, reservoir filled in 1977 c) Porttipahta, reservoir filled in 1970 Chest muscle samples from adults and juveniles collected 1980-84. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Goldeye
HIODON ALOSOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10753 Muscle	a) 10 b) 69	a) 265-600 ug/kg b) 228-1703 ug/kg Wet wt	a) 421 ug/kg b) 552 ug/kg Wet wt	a) Upstream North Saskatchewan River (NSR) b) Central-east Alberta segment of NSR Collected 1982. Mercury bioconcentration factor was 2.07X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Hake
MERLUCCIUS MERLUCCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10754 Muscle		a) Not given b) Not given c) Not given d) 0.123-0.235 mg/kg Wet wt	a) 0.139 mg/kg b) 0.104 mg/kg c) 0.285 mg/kg d) 0.182 mg/kg Wet wt	a) Northern Adriatic, 27 cm long, collected 1980-81 b) Southern Adriatic, 21 cm long, collected 6/80 d) Kastela Bay, 18-23 cm long, 4 samples, collected 11/80 Carnivorous fish species. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC
FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39				

Mussel
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10755 Body		a) 15-112 ug/kg b) 0.005-0.015 mg/kg c) 0.007-0.009 mg/kg d) Not applicable Wet wt	a) Not given b) Not given c) Not given d) 0.003 mg/kg Wet wt	a) Large specimens, Kastela Bay, 12 samples b) Composite of 10-15 specimens 3-6 cm long, Northern Adriatic, 6 samples c) Specimens 5-6 cm long, Central Adriatic, 3 samples d) Specimens 7 cm long, Southern Adriatic, 1 sample, Collected 1980-81. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC
10756 Gills	12	11-83 ug/kg Wet wt	38 ug/kg Wet wt	Collected 1980-81, Kastela Bay. Mean calculated from table Levels in sediment were 2-20 ug/g, wet weight, and in fish, 102-1448 ug/kg. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC
10757 Mantle	12	17-125 ug/g Wet wt	61 ug/g Wet wt	Collected 1980-81, Kastela Bay. Mean calculated from table Levels in sediment were 2-20 ug/g, wet weight, and in fish, 102-1448 ug/kg. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC
10758 Muscle	12	20-129 ug/g Wet wt	61 ug/g Wet wt	Collected 1980-81, Kastela Bay. Mean calculated from table Levels in sediment were 2-20 ug/g, wet weight, and in fish, 102-1448 ug/kg. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC
10759 Viscera	12	19-138 ug/g Wet wt	64 ug/g Wet wt	Collected 1980-81, Kastela Bay. Mean calculated from table Levels in sediment were 2-20 ug/g, wet weight, and in fish, 102-1448 ug/kg. Yugoslavia, Adriatic Sea, Kastela Bay GC-EC
FISHES; ENVIRONMENTAL EXPOSURE; AQUATIC; BIOMAGNIFICATION; BIOLOGICAL MONITORING; YUGOSLAVIA; ADRIATIC SEA; GILLS; MUSCLES; VISCERA; MANTLE; BODY; MOLLUSKS; MERCURY ORGANIC COMPOUNDS Mikac, N.; Picer, M. 1985 Science of the Total Environment 43:27-39				

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63
Myctophid
DIAPHUS SUBORBITALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10760 Body, whole	10	Not applicable	0.05 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

Pike, northern
ESOX LUCIUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10761 Muscle	43	3-1003 ug/kg Wet wt	284 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.56X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Tissue	Cases Exposure Route	Range	Mean	General Information
10762 Muscle	a) 35 b) 47 c) 70 d) 17 e) 46	a) 0.47-1.59 mg/kg b) 0.23-1.38 mg/kg c) 0.68-3.90 mg/kg d) 0.59-1.81 mg/kg e) 0.25-1.63 mg/kg Wet wt	a) 0.87 mg/kg b) 0.58 mg/kg c) 1.69 mg/kg d) 1.14 mg/kg e) 0.67 mg/kg Wet wt	Collected at Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Kyrokosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir fill in 1980 Samples collected 1980-84. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Roach
RUTILUS RUTILUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10763 Muscle	a) 35 b) 47 c) 70 d) 17 e) 46	a) 0.20-0.40 mg/kg b) 0.15-0.39 mg/kg c) 0.41-1.15 mg/kg d) 0.62-1.06 mg/kg e) 0.23-0.47 mg/kg Wet wt	a) 0.31 mg/kg b) 0.29 mg/kg c) 0.72 mg/kg d) 0.74 mg/kg e) 0.34 mg/kg Wet wt	Collected at Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Kyrokosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir fill in 1980 Samples collected 1980-84. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Sauger
STIZOSTEDION CANADENSE

Tissue	Cases Exposure Route	Range	Mean	General Information
10764 Muscle	26	192-1533 ug/kg Wet wt	685 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 3.71X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Squid
TODARODES PACIFICUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10765 Body, whole	5	Not given	0.06+/-0.03 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

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Sucker, longnose
CATOSTOMUS CATOSTOMUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10766 Muscle	46	30-499 ug/kg Wet wt	190 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.22X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Sucker, northern redhorse
MOXOSTOMA MACROLEPIDOTUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10767 Muscle	23	109-550 ug/kg Wet wt	322 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.84X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Sucker, white
CATOSTOMUS COMMERSONI

Tissue	Cases Exposure Route	Range	Mean	General Information
10768 Muscle	27	16-624 ug/kg Wet wt	273 ug/kg Wet wt	Collected central-east Alberta segment of North Saskatchewan River, 1982. Mercury bioconcentration factor was 1.56X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Walleye
STIZOSTEDION VITREUM VITREUM

Tissue	Cases Exposure Route	Range	Mean	General Information
10769 Muscle	a) 8 b) 35	a) 205-614 ug/kg b) 104-1159 ug/kg Wet wt	a) 349 ug/kg b) 597 ug/kg Wet wt	a) Upstream North Saskatchewan River (NSR) b) Central-east Alberta segment of NSR Collected 1982. Mercury bioconcentration factor was 3.22X10(E+3). Canada, Alberta, North Saskatchewan River

MERCURY; MERCURY ORGANIC COMPOUNDS; FISHES; CANADA; BIOCONCENTRATION; WATER POLLUTION; ENVIRONMENTAL EXPOSURE; AQUATIC
Ramamoorthy, S.; Moore, J.W.; George, L. 1985 Chemosphere 14(10):1455-1468

Mercury(1+), methyl-, ion (8 CI); Mercury(1+), methyl- (9 CI)
22967-92-6
C-H3-Hg
MW 215.63

Zoobenthos

Tissue	Cases Exposure Route	Range	Mean	General Information
10770 Body	a) 13 b) 26 c) 22 d) 12 e) 24	a) 0.007-0.138 mg/kg b) 0.002-0.089 mg/kg c) 0.010-0.221 mg/kg d) 0.021-0.446 mg/kg e) 0.007-0.106 mg/kg Wet wt	a) 0.045 mg/kg b) 0.040 mg/kg c) 0.078 mg/kg d) 0.186 mg/kg e) 0.047 mg/kg Wet wt	Collected at Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Kyrokosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir fill in 1980 Sampling performed manually from littoral area, 1980-84. Samples included trichoptera larvae and some dragonfly larvae. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Zooplankton

Tissue	Cases Exposure Route	Range	Mean	General Information
10771 Body	a) 9 b) 8 c) 8 d) 7 e) 26	a) 0.11-0.33 mg/kg b) 0.09-0.49 mg/kg c) 0.12-0.62 mg/kg d) 0.19-0.63 mg/kg e) 0.04-0.41 mg/kg Dry wt	a) 0.10 mg/kg b) 0.22 mg/kg c) 0.26 mg/kg d) 0.38 mg/kg e) 0.18 mg/kg Dry wt	a) Lake Pihlajavesi b) Lake Seinajarvi c) Kalajarvi, reservoir filled in 1977 d) Krykosjarvi, reservoir filled in 1981 e) Porttipahta, reservoir filled in 1970 Samples collected mainly from littoral areas with some from pelagial areas, 1980-84. Finland

MERCURY; WATER POLLUTION; FISHES; BIRDS; ENVIRONMENTAL EXPOSURE; MUSCLES; BODY; FINLAND; MERCURY; ORGANIC COMPOUNDS; AQUATIC; BIOACCUMULATION
Surma-Aho, K.; Paasivirta, J.; Rekolainen, S.; Verta, M. 1986 Chemosphere 15(3):353-372

Mercury, isotope of mass 203
13982-78-0
Hg
Mouse

Tissue	Cases Exposure Route	Range	Mean	General Information
10772 Urine	Injection	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) 20 b) 8 c) 6 d) 40 e) 22 f) 19 g) 46 h) 28 i) 25 % of dose	a) 2 days after injection, ICR strain b) C57BL strain c) C3H strain d) 10 days after injection, ICR strain e) C57BL strain f) C3H strain g) 20 days after injection ICR strain h) C57BL strain i) C3H strain Administered as single ip dose of [203-Hg]-CH3HgCl, 1 mg/kg. 10 mice of each strain. Japan

DELIBERATE EXPOSURE; MICE; URINE; MERCURY; METHYLMERCURY; JAPAN; COMPARATIVE EVALUATIONS; RODENTS; INJECTION; TERRESTRIAL
Doi, R. 1986 Bulletin of Environmental Contamination and Toxicology 36:500-505

Metallothionein
9038-94-2
EXACT COMPOSITION UNKNONWN OR UNDETERMINED
Seal, harbor
PHOCA VITULINA

Tissue	Cases Exposure Route	Range	Mean	General Information
10773 Kidney	15	87-763 ug/g Wet wt	343+/-219 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 Immunologic
10774 Liver	15	59-601 ug/g Wet wt	240+/-139 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 Immunologic

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

Methane, bis(2-chloroethoxy)- (8 CI); Ethane, 1,1'-(methylenebis(oxy))bis(2-chloro- (9 CI)
111-91-1
C5-H10-Cl2-O2
MW 173.05, BP 218.1 C, VP 0.1 mm Hg at 20 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10775 Body		Not given	12 ppb Wet wt	Composite sample, collected 5/80-6/80, Chef Menteur Pass 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				

Methane, dichloro-
75-09-2
C-H2-Cl2
MW 84.94, MP -95.1 C, BP 39.75 C, VP 380 mm Hg at 22 C

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10776 Body		a) Not given b) Not given	a) 27 ppb b) 4.5 ppb Wet wt	a) Chef Menteur Pass b) 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
10777 Body		Not given	7.8 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				

Methylethylbenzene (No postings in CHEMLINE).
C9-H12
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10778 Body		Not given	3.1 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

Methyloctanol (No postings in CHEMLINE).
Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10779 Body		Not given	2.4 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

Methylpentylcyclopropane (No postings in CHEMLINE).
Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10780 Body		Not given	6.0 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

Methylpropenamine (No postings in CHEMLINE).

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10781 Body		Not given	0.1 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

Methylpropylpentanol (No postings in CHEMLINE).

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10782 Body		a) Not given b) Not given	a) 2.2 ppb b) 1.5 ppb Wet wt	a) Chef Menteur Pass b) The Rigolets Navigable channels 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
10783 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

Mixt. of 2,2,5-endo,6-exo,8,9,9,10-octachlorobornane and 2,2,4-endo,6-exo,8,8,9,10-octachlorobornane (No postings in CHEMLINE).

Trout, lake
SALVELINUS NAMAYCUSH

Tissue	Cases Exposure Route	Range	Mean	General Information
10784 Adipose	4	0.08-0.70 ug/g Wet wt	0.26+/-0.26 ug/g S.E. Wet wt	One of the primary toxic constiutents of toxaphene, measured in the "belly flap" region of fish collected 8/6/82. Because of environmental alteration of technical toxaphene, measurement of toxic congeners a toxicologically relevant measure of residues. 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

Molybdenum

7439-98-7
Mo
AtW 95.94, MP 2622 C, BP 4825 C (approx), VP 1 mm Hg at 3300 C, 10 mm Hg at 3770 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10785 Kidney	90	0-0.9 ppm	0.34+/-0.15 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
10786 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.32 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 ICP, 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

Molybdenum
7439-98-7
Mo
AtW 95.94, MP 2622 C, BP 4825 C (approx), VP 1 mm Hg at 3300 C, 10 mm Hg at 3770 C

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10787 Liver	229	0-17 ppm	0.70+/-0.35 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
10788 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 1.17 ug/g b) 0.99 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, Chelex separation
10789 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.03 ug/g b) 0.04 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, Chelex separation
10790 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.30 ug/g b) 0.46 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, 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

Molybdenum
7439-98-7
Mo
AtW 95.94, MP 2622 C, BP 4825 C (approx), VP 1 mm Hg at 3300 C, 10 mm Hg at 3770 C

Coot, American
FULICA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
10791 Liver	a) 19 b0 10 c) 79 d) 40	a) 0.6-8.2 ppm b) 0.8-2 ppm c) Not detected-15.5 ppm d) Not detected-6.2 ppm Wet wt	a) 2.8 ppm b) 1.3 ppm c) 1.8 ppm d) 1.9 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 (1.2 and 2.1 ppm, respectively). 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

Insect

Tissue	Cases Exposure Route	Range	Mean	General Information
10792 Liver	a) 5 b) 7	a) Not detected-1.6 ppm b) Not detected-2.1 ppm Dry wt	a) Not given b) 0.772 ppm Dry wt Geometric	a) Detected in 2/5 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 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

Molybdenum
7439-98-7
Mo
AtW 95.94, MP 2622 C, BP 4825 C (approx), VP 1 mm Hg at 3300 C, 10 mm Hg at 3770 C

Sponge
SPIRASTRELLA CUSPIDIFERA

Tissue	Cases Exposure Route	Range	Mean	General Information
10793 Body		5-25 ug/g Dry wt	17.0 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
10794 Body		8-35 ug/g Dry wt	17.0 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

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Burbot
LOTA LOTA

Tissue	Cases Exposure Route	Range	Mean	General Information
10795 Gall bladder		Not given	215 ug/kg Wet wt	Collected 4/28/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
10796 Liver		Not given	72 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)

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Burbot
LOTA LOTA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10797 Muscle		Not detected	Not detected	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				

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10798 Adipose	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 0.001% b) 0.001% % dose/gX10(E-3)	a) 72 hr after single exposure to 1200 Ci (30.69 mg) b) Day 34, chronic exposure to 200 Ci (5.115 mg)/d Dose by oral intubation. Holstein dairy cows. Scintillation counting
10799 Heart	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 0.010% b) 0.004% % dose/gX10(E-3)	a) 72 hr after single exposure to 1200 Ci (30.69 mg) b) Day 34, chronic exposure to 200 Ci (5.115 mg)/d Dose by oral intubation. Holstein dairy cows. Scintillation counting
10800 Kidney	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 0.010% b) 0.002% % dose/gX10(E-3)	a) 72 hr after 1200 Ci (30.69 mg) b) 34th day, 200 Ci (5.115 mg)/d Dose given by oral intubation. Holstein dairy cows. Scintillation counting
10801 Liver	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 0.015% b) 0.006% % dose/gX10(E-3)	a) 72 hr after single exposure to 1200 Ci (30.69 mg) b) Day 34, chronic exposure to 200 Ci (5.115 mg)/d Dose by oral intubation. Holstein dairy cows. Scintillation counting
10802 Lung	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 0.012% b) 0.003% % dose/gX10(E-3)	a) 72 hr after 1200 Ci (30.69 mg) b) 34th day, 200 Ci (5.115 mg)/d Dose given by oral intubation. Holstein dairy cows. Scintillation counting

(next page)

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Cattle
BOS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10803 Milk	2 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 i) Not applicable j) Not applicable k) Not applicable l) Not applicable	a) 0.015% b) 0.0075% c) 0.004% d) 0.002% e) 0.0012% f) 20% g) 22% h) 19% i) 19% j) 28% k) 19% l) 1% a-e) % dose/gX10(E+3) f-l) % dose/gX10(E+6)	a) 8 hr after single exposure to 1200 Ci (30.69 mg), 1 case b) Day 1 after dose, AM c) Day 1, PM d) Day 2, AM e) Day 3, AM f) Day 3 after chronic exposure, 200 Ci (5.115 mg)/day for 3/day, 1 case g) Day 8 h) Day 12 i) Day 17 j) Day 22 k) Day 32 l) Day 33 Estimated from graphs. Dose by oral intubation. Holstein dairy cows. Scintillation counting
10804 Milk, fat	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 i) Not applicable j) Not applicable k) Not applicable l) Not applicable	a) 0.0175% b) 0.0075% c) 0.004% d) 0.001% e) 0.0015% f) 11% g) 16% h) 36% i) 30% j) 35% k) 24% l) 4% a-e) % dose/gX10(E+3) f-l) % dose/gX10(E+6)	a) 8 hr after single exposure to 1200 Ci (30.69 mg), 1 case b) Day 1 after dose, AM c) Day 1, PM d) Day 2, AM e) Day 3, AM f) Day 3 after chronic exposure, 200 Ci (5.115 mg)/day for 3/day, 1 case g) Day 8 h) Day 12 i) Day 17 j) Day 22 k) Day 32 l) Day 33 Estimated from graphs. Dose by oral intubation. Holstein dairy cows. Scintillation counting
10805 Muscle	2 Ingestion	a) Not given b) Not given c) Not given d) Not given	a) 0.008% b) 0.016% c) 0.003% d) 0.002% % dose/gX10(E-3)	a) Loin, 72 hr after single exposure to 1200 Ci (30.69 mg), 1 case b) Flank c) Loin, day 34, chronic exposure to 200 Ci9 (5.115 mg)/d, 1 case d) Flank Dose by oral intubation. Holstein dairy cows. Scintillation counting
10806 Spleen	a) 1 b) 1 Ingestion	a) Not given b) Not given	a) 0.010% b) 0.004% % dose/gX10(E-3)	a) 72 hr after single exposure to 1200 Ci (30.69 mg) b) Day 34, chronic exposure to 200 Ci (5.115 mg)/d Dose by oral intubation. Holstein dairy cows. Scintillation counting

LIVER; ADIPOSE TISSUE; MUSCLES; HEART; SPLEEN; KIDNEYS; LUNGS; EGGS; MILK; MILK FAT; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; SWINE; BIRDS; HYDROCARBONS; MEAT; BIOCONCENTRATION

Eisele, G.R. 1985 Bulletin of Environmental Contamination and Toxicology 34:549-556

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C
Chicken
GALLUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10807 Adipose	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 13.50+/-2.00% b) 1.60+/-0.06% c) 0.37+/-0.11% % total dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 17.3 Ci (0.443 mg) b) 72 hr c) Day 31, chronic exposure to 1.39 Ci (0.036 mg)/d Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting
10808 Eggs	a) 3 b) 3 c) 3 d) 3 e) 3 f) 3 g) 3 h) 3 i) 3 j) 2 k) 3 l) 3 m) 2 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 m) Not given	a) 1.5% b) 0.7% c) 8.5% d) 0.25% e) 4.0% f) 5.0% g) 78% h) 25% i) 51% j) 9% k) 71% l) 18% m) 1% a-f) % dose/gX10(E-3) [sic] g-j) % dose/gX10(E+3) [sic]	a) White, 24 hr after single exposure to 17.3 Ci (0.443 mg) b) Yolk c) Internal yolks d) White, 72 hr e) Yolk f) Internal yolk g) Yolk, day 1 after starting 1.39 Ci (0.036 mg)/d h) Day 2 j) Day 30 k) White, day 1 l) Day 2 m) Day 10 Estimated from graphs. Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting
10809 Heart	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 3.91+/-0.39% b) 0.43+/-0.03% c) 0.44+/-0.06% % dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 17.3 Ci (0.443 mg) b) 72 hr c) Day 31, chronic exposure to 1.39 Ci (0.036 mg)/d Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting
10810 Kidney	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 42.90+/-1.05% b) 8.03+/-1.07% c) 2.40+/-0.22% % total dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 17.3 Ci (0.443 mg) b) 72 hr c) Day 31, chronic exposure to 1.39 Ci (0.036 mg)/d Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting
10811 Liver	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 8.75+/-0.39% b) 0.96+/-0.12% c) 0.74+/-0.10% % total dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 17.3 Ci (0.443 mg) b) 72 hr c) Day 31, chronic exposure to 1.39 Ci (0.036 mg)/d Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting

(next page)

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Chicken
GALLUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10812 Lung	a) 1 b) 1 c) 1 Ingestion	a) Not given b) Not given c) Not given	a) 13.50% b) 2.93% c) 1.24% % total dose/gX10(E-3)	a) 24 hr after single exposure to 17.3 Ci (0.443 mg) b) 72 hr c) Day 31, chronic exposure to 1.39 Ci (0.036 mg)/d Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting
10813 Muscle	9 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 2.63+/-0.26% b) 1.68+/-0.16% c) 0.64+/-0.21% d) 0.30+/-0.03% e) 0.33+/-0.04% f) 0.16+/-0.01% % total dose/gX10(E-3) S.E.	a) Dark meat, 24 hr after single exposure to 17.3 Ci (0.443 mg), 3 cases b) White meat, 24 hr c) Dark meat, 72 hr, 3 cases d) White meat 72 hr e) Dark meat, Day 31, chronic exposure to 1.39 Ci (0.036 mg)/d, 3 cases f) White meat Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting
10814 Spleen	a) 1 b) 1 c) 1 Ingestion	a) Not given b) Not given c) Not given	a) 3.76% b) 1.36% c) 0.71% % total dose/gX10(E-3)	a) 24 hr after single exposure to 17.3 Ci (0.443 mg) b) 72 hr c) Day 31, chronic exposure to 1.39 Ci (0.036 mg)/d Single-combed White Leghorn pullets, approx 41 wk old, individually caged. Dose by oral intubation. Scintillation counting
LIVER; ADIPOSE TISSUE; MUSCLES; HEART; SPLEEN; KIDNEYS; LUNGS; EGGS; MILK; MILK FAT; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; SWINE; BIRDS; HYDROCARBONS; MEAT; BIOCONCENTRATION Eisele, G.R. 1985 Bulletin of Environmental Contamination and Toxicology 34:549-556				

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10815 Body		a) Not given b) Not given	a) 120 ppb b) 51 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				

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Herring, Baltic
CLUPEA HARENGUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10816 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

Killifish, Gulf
FUNDULUS SIMILIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10817 Brain				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)- of petroleum hydrocarbons on marine fishes were summarized. Total naphthalenes were measured.
10818 Gall bladder				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)- of petroleum hydrocarbons on marine fishes were summarized. Total naphthalenes were measured.
10819 Gills				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)- of petroleum hydrocarbons on marine fishes were summarized. Total naphthalenes were measured.
10820 Gut				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)- of petroleum hydrocarbons on marine fishes were summarized. Total naphthalenes were measured.
10821 Heart				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)- of petroleum hydrocarbons on marine fishes were summarized. Total naphthalenes were measured.
10822 Liver				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)- of petroleum hydrocarbons on marine fishes were summarized. Total naphthalenes were measured.
10823 Muscle				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)- of petroleum hydrocarbons on marine fishes were summarized. Total naphthalenes were measured.

REVIEW; FISHES; GUT; LIVER; GALL BLADDER; GILLS; HEART; BRAIN; MUSCLES; AQUATIC; HYDROCARBONS; WATER POLLUTION; BIOACCUMULATION; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; METABOLITES
Malins, D.C.; Hodgins, H.O. 1981 Environmental Science and Technology 15(11):1272-1278

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Mullet, white
MUGIL CUREMA

Tissue	Cases Exposure Route	Range	Mean	General Information
10824 Gills	4	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 2.04 mg/kg b) 4.33 mg/kg c) 3.15 mg/kg d) 7.88 mg/kg e) 5.13 mg/kg f) 8.90 mg/kg	a) Experimental level of 0.01 mg/L for 24 hr b) 96 hr c) Experimental level of 0.05 mg/L for 24 hr d) 96 hr e) Experimental level 0.10 mg/L for 24 hr f) 96 hr Collected from sandy beaches, 1/79 and 7/79. Data also given for 48 and 72 hr. Venezuela, Guiritar, Quetepe, La Chica Spectrophotometry
10825 Liver	4	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 3.91 mg/kg b) 9.42 mg/kg c) 4.18 mg/kg d) 12.39 mg/kg e) 8.08 mg/kg f) 17.21 mg/kg	a) Experimental level of 0.01 mg/L for 24 hr b) 96 hr c) Experimental level of 0.05 mg/L for 24 hr d) 96 hr e) Experimental level 0.10 mg/L for 24 hr f) 96 hr Collected from sandy beaches, 1/79 and 7/79. Data also given for 48 and 72 hr. Venezuela, Guiritar, Quetepe, La Chica Spectrophotometry
10826 Muscle	4	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 3.24 mg/kg b) 4.26 mg/kg c) 3.81 mg/kg d) 5.18 mg/kg e) 3.93 mg/kg f) 6.47 mg/kg	a) Experimental level of 0.01 mg/L for 24 hr b) 96 hr c) Experimental level of 0.05 mg/L for 24 hr d) 96 hr e) Experimental level 0.10 mg/L for 24 hr f) 96 hr Collected from sandy beaches, 1/79 and 7/79. Data also given for 48 and 72 hr. Venezuela, Guiritar, Quetepe, La Chica Spectrophotometry
10827 Spleen	4	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 3.43 mg/kg b) 10.58 mg/kg c) 6.82 mg/kg d) 14.26 mg/kg e) 7.71 mg/kg f) 25.78 mg/kg	a) Experimental level of 0.01 mg/L for 24 hr b) 96 hr c) Experimental level of 0.05 mg/L for 24 hr d) 96 hr e) Experimental level 0.10 mg/L for 24 hr f) 96 hr Collected from sandy beaches, 1/79 and 7/79. Data also given for 48 and 72 hr. Venezuela, Guiritar, Quetepe, La Chica Spectrophotometry

GILLS; LIVER; SPLEEN; MUSCLES; MULLET; AQUATIC; ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; BIOCONCENTRATION; BIOACCUMULATION; VENEZUELA; POLYCYCLIC AROMATIC HYDROCARBONS; FISHES; WATER POLLUTION

Correa, M.; Venables, B.J. 1985 Environmental Toxicology and Chemistry 4:227-231

Naphthalene

91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Mussel, blue
MYTILUS EDULIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10828 Body		a) Not detected-41 ug/kg b) Not detected-19 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
10829 Body		Not given	35 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10830 Digestive diverticulum	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 10 ng/mg b) 9 ng/mg c) 18 ng/mg d) 12 ng/mg Dry wt	a) After 15 hr exposure to 20.5 ng/ml adsorbed on particles b) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene c) After 15 hr exposure to 83 ng/ml dissolved in the water d) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene Estimated from graph. Scintillation counting
10831 Gills	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 5 ng/mg b) 4 ng/mg c) 8 ng/mg d) 7.5 ng/mg Dry wt	a) After 15 hr exposure to 20.5 ng/ml adsorbed on particles b) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene c) After 15 hr exposure to 83 ng/ml dissolved in the water d) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene Estimated from graph. Scintillation counting

(next page)

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Oyster, American
CRASSOSTREA VIRGINICA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10832 Labial palps	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 14 ng/mg b) 5 ng/mg c) 36 ng/mg d) 16 ng/mg Dry wt	a) After 15 hr exposure to 20.5 ng/ml adsorbed on particles b) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene c) After 15 hr exposure to 83 ng/ml dissolved in the water d) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene Estimated from graph. Scintillation counting
10833 Mantle	a) 6 b) 6 c) 6 d) 6	a) Not given b) Not given c) Not given d) Not given	a) 4 ng/mg b) 3 ng/mg c) 20 ng/mg d) 10 ng/mg Dry wt	a) After 15 hr exposure to 20.5 ng/ml adsorbed on particles b) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene c) After 15 hr exposure to 83 ng/ml dissolved in the water d) Same, plus 10 ng/ml PCB and 1.2 ng/ml [H-3]-benzopyrene Estimated from graph. Scintillation counting

GILLS; MANTLE; LABIAL PALPS; DIGESTIVE DIVERTICULA; DELIBERATE EXPOSURE; SHELLFISH; AQUATIC; POLYCHLORINATED BIPHENYLS; HYDROCARBONS; BIOACCUMULATION; WATER POLLUTION
Fortner, A.R.; Sick, L.V. 1985 Bulletin of Environmental Contamination and Toxicology 34:256-264

Pike-perch
STIZOSTEDION LUCIOPERCA

Tissue	Cases Exposure Route	Range	Mean	General Information
10834 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
10835 Liver		Not given	45 ug/kg Wet wt	Collected 7/3/79, one site. Detection limit 0.5 ug/kg. Composite sample. Finland, Archipelago Sea GLC/MS
10836 Muscle		Not detected	Not detected	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

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Sunfish, Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10837 Body	a) 60 b) 60 Ingestion	a) 125-100 nmol/g b) 125-100 nmol/g Wet wt	a) Not applicable b) Not applicable	a) 1-60 hr, peak (1850 nmol/g) at 24 hr. Exposed to 4.4+/-0.8 nmol/ml from 0-24 hr, none therafter b) 1-60 hr, peak (1675 nmol/g) at 24 hr. Exposed to 4.4+/-0.8 nmol/ml and 20 mg C/l dissolved humic material from 0-24 hr, only dissolved humic material thereafter. 1.7% bound to dissolved humic material Estimated from graph. Georgia, Cohutta HPLC
BODY; FISHES; AQUATIC; DELIBERATE EXPOSURE; TENNESSEE; POLYCYCLIC AROMATIC HYDROCARBONS; BIOACCUMULATION; BIOAVAILABILITY McCarthy, J.F.; Jimenez, B.D. 1985 Environmental Toxicology and Chemistry 4:511-521				

Swine
SUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10838 Adipose	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 3.48+/-2.16% b) 2.18+/-1.16% c) 0.03+/-0.01% % dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 96 Ci (2.46 mg) b) 72 hr c) Day 31, chronic exposure to 4.36 Ci (0.112 mg)/d Growing Yorkshire swine, approx 20 kg, maintained in individual holding units. Dose by oral intubation. Scintillation counting
10839 Heart	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 0.09+/-0.04% b) 0.05+/-0.00% c) 0.11+/-0.03% % dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 96 Ci (2.46 mg) b) 72 hr c) Day 31, chronic exposure to 4.36 Ci (0.112 mg)/d Growing Yorkshire swine, approx 20 kg, maintained in individual holding units. Dose by oral intubation. Scintillation counting
10840 Kidney	a) 1 b) 1 c) 1 Ingestion	a) Not given b) Not given c) Not given	a) 0.96% b) 0.26% c) 0.09% % dose/gX10(E-3)	a) 24 hr after single exposure to 96 Ci (2.46 mg) b) 72 hr c) Day 31, chronic exposure to 4.36 Ci (0.112 mg)/d Growing Yorkshire swine, approx 20 kg, maintained in individual holding units. Dose by oral intubation. Scintillation counting
10841 Liver	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 0.26+/-0.06% b) 0.34+/-0.24% c) 0.11+/-0.05% % dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 96 Ci (2.46 mg) b) 72 hr c) Day 31, chronic exposure to 4.36 Ci (0.112 mg)/d Growing Yorkshire swine, approx 20 kg, maintained in individual holding units. Dose by oral intubation. Scintillation counting

(next page)

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Swine
SUS sp.

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10842 Lung	a) 1 b) 1 c) 1 Ingestion	a) Not given b) Not given c) Not given	a) 0.16% b) 0.26% c) 0.15% % dose/gX10(E-3)	a) 24 hr after single exposure to 96 Ci (2.46 mg) b) 72 hr c) Day 31, chronic exposure to 4.36 Ci (0.112 mg)/d Growing Yorkshire swine, approx 20 kg, maintained in individual holding units. Dose by oral intubation. Scintillation counting
10843 Muscle	9 Ingestion	a) Not given b) Not given c) Not given d) Not given e) Not given f) Not given	a) 0.11+/-0.03% b) 0.12+/-0.02% c) 0.05+/-0.00% d) 0.06+/-0.00% e) 0.05+/-0.00% f) 0.06+/-0.00% % dose/gX10(E-3) S.E.	a) Loin, 24 hr after single exposure to 96 Ci (2.46 mg), 3 cases b) Ham 24 hr c) Loin, 72 hr, 3 cases d) Ham 72 hr e) Loin, day 31st, chronic exposure to 4.36 Ci (0.112 mg)/d, 3 cases f) Ham Growing Yorkshire swine, approx 20 kg, maintained in individual holding units. Dose by oral intubation. Scintillation counting
10844 Spleen	a) 3 b) 3 c) 3 Ingestion	a) Not given b) Not given c) Not given	a) 0.07+/-0.01% b) 0.06+/-0.02% c) 0.09+/-0.05% % dose/gX10(E-3) S.E.	a) 24 hr after single exposure to 96 Ci (2.46 mg) b) 72 hr c) Day 31, chronic exposure to 4.36 Ci (0.112 mg)/d Growing Yorkshire swine, approx 20 kg, maintained in individual holding units. Dose by oral intubation. Scintillation counting

LIVER; ADIPOSE TISSUE; MUSCLES; HEART; SPLEEN; KIDNEYS; LUNGS; EGGS; MILK; MILK FAT; CATTLE; TERRESTRIAL; DELIBERATE EXPOSURE; SWINE; BIRDS; HYDROCARBONS; MEAT; BIOCONCENTRATION

Eisele, G.R. 1985 Bulletin of Environmental Contamination and Toxicology 34:549-556

Trout, rainbow
SALMO GAIRDNERI

Tissue	Cases Exposure Route	Range	Mean	General Information
10845 Blood				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)-of petroleum hydrocarbons on marine fishes were summarized. Naphthalene and total polar metabolites.
10846 Brain				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)-of petroleum hydrocarbons on marine fishes were summarized. Naphthalene and total polar metabolites.

(next page)

Naphthalene
91-20-3
C10-H8
MW 128.16, MP 80.1 C, BP 217.9 C, VP 1 mm Hg at 52.6 C

Trout, rainbow
SALMO GAIRDNERI

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10847 Liver				Review. The uptake, disposition, and effects-(acute, chronic, and pathologic)-of petroleum hydrocarbons on marine fishes were summarized. Naphthalene and total polar metabolites.

REVIEW; FISHES; GUT; LIVER; GALL BLADDER; GILLS; HEART; BRAIN; MUSCLES; AQUATIC; HYDROCARBONS; WATER POLLUTION; BIOACCUMULATION; DELIBERATE EXPOSURE; ENVIRONMENTAL EXPOSURE; METABOLITES
Malins, D.C.; Hodgins, H.O. 1981 Environmental Science and Technology 15(11):1272-1278

Naphthalene, methyl-
1321-94-4
C11-H10
MW 142, MP -22 C, BP 244.6 C

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10848 Body		Not given	15 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

Naphthalene, 2-chloro-
91-58-7
C10-H7-Cl
MW 162.61, MP 59.5 C, BP 256 C at 760 mm Hg, 132.6 C at 20 mm Hg, 119.7 C at 11 mm Hg

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10849 Body		a) Not given b) Not given	a) 970 ppb b) 140 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

Naphthalene, 2-chloro-
91-58-7
C10-H7-Cl
MW 162.61, MP 59.5 C, BP 256 C at 760 mm Hg, 132.6 C at 20 mm Hg, 119.7 C at 11 mm Hg

Oyster, American
CRASSOSTREA VIRGINICA

Tissue	Cases Exposure Route	Range	Mean	General Information
10850 Body		Not given	34 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				

Naphtho(1,2,3,4-def)chrysene
192-65-4
C24-H14
MW 302.38, MP 233-234 C

Mussel
MYTILUS GALLOPROVINCIALIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10851 Body	a) 29 b) 28	a) Not given b) Not given	a) Trace b) 5 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				

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

Bass, largemouth
MICROPTERUS SALMOIDES

Tissue	Cases Exposure Route	Range	Mean	General Information
10852 Muscle	3	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

Blackfish
TAUTOGA ONITIS

Tissue	Cases Exposure Route	Range	Mean	General Information
10853 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

Bluefish
POMATOMUS SALTATRIX

Tissue	Cases Exposure Route	Range	Mean	General Information
10854 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

Bluegill
LEPOMIS MACROCHIRUS

Tissue	Cases Exposure Route	Range	Mean	General Information
10855 Muscle	2	0.001-0.002 mg/kg Wet wt	0.002 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

Catfish
ICTALURUS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10856 Muscle	2	0.001-0.003 mg/kg Wet wt	0.002 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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10857 Blood	a) 78 b) 18 Ingestion	a) Not given b) Not given	a) 0.007 ug/g b) 0.009 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
10858 Bone	a) 62 b) 27 Ingestion	a) Not given b) Not given	a) 0.702 ug/g b) 1.181 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

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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10859 Bone	85 Ingestion	a) <0.001-0.267 ug/g b) 0.050-0.230 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) 1.50 ug/g d) 1.18 ug/g e) 0.02 ug/g f) 0.02 ug/g g) 0.08 ug/g h) 0.02 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, 35 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

Tissue	Cases Exposure Route	Range	Mean	General Information
10860 Brain	a) 59 b) 24 Ingestion	a) Not given b) Not given	a) 0.321 ug/g b) 0.587 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
10861 Brain	a) 58 b) 26 Ingestion	a) Not given b) Not given	a) 0.28 ug/g b) 0.24 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

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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10862 Brain	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.05 ug/g b) 0.11 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, 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
10863 Diaphragm	a) 63 b) 29 Ingestion	a) Not given b) Not given	a) 0.234 ug/g b) 0.506 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
10864 Diaphragm	a) 5 b) 10 c) 6 d) 9 e) 35 f) 68 Ingestion	a) Not given b) Not given c) <0.001-0.350 ug/g d) 0.023-0.189 ug/g e) Not given f) Not given Dry wt	a) 1.373 ug/g b) 0.394 ug/g c) Not given d) Not given e) 0.28 ug/g f) 0.31 ug/g Dry wt	a) 4-5 mo old fetuses. Mothers grasing in untreated (control) pastures <= 6 yr b) 4-5 mo old fetuses. Mothers grasing 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

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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10865 Heart	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 0.391 ug/g b) 0.279 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
10866 Heart	a) 5 b) 10 c) 4 d) 6 e) 15 f) 40 Ingestion	a) Not given b) Not given c) 0.207-0.300 ug/g d) 0.025-0.877 ug/g e) Not given f) Not given Dry wt	a) 0.681 ug/g b) 0.234 ug/g c) Not given d) Not given e) 0.59 ug/g f) 0.34 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
10867 Kidney	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 0.499 ug/g b) 0.272 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

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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10868 Kidney	a) 5 b) 10 c) 4 d) 6 e) 15 f) 40 g) 5 h) 10 i) 5 j) 10 Ingestion	a) Not given b) Not given c) 0.150-0.194 ug/g d) 0.092-0.171 ug/g e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given Dry wt	a) 0.352 ug/g b) 0.340 ug/g c) Not given d) Not given e) 1.01 ug/g f) 0.56 ug/g g) 1.05 ug/g h) 0.47 ug/g i) 0.35 ug/g j) 1.34 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
10869 Kidney	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.035 ug/g b) 0.040 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 ICP, 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
10870 Liver	a) 64 b) 28 Ingestion	a) Not given b) Not given	a) 0.184 ug/g b) 0.148 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

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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10871 Liver	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) 0.136-0.763 ug/g d) 0.079-0.308 ug/g e) Not given f) Not given g) Not given h) Not given i) Not given j) Not given Dry wt	a) 0.720 ug/g b) 0.166 ug/g c) Not given d) Not given e) 0.38 ug/g f) 0.42 ug/g g) 0.06 ug/g h) 0.27 ug/g i) 0.73 ug/g j) 0.64 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
10872 Liver	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.045 ug/g b) 0.074 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, 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
10873 Milk	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 0.086 ug/g b) 0.050 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

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

Cattle
BOS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10874 Muscle	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.07 ug/g b) 0.07 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, Chelex separation
10875 Spleen	a) 6 b) 6 Ingestion	a) Not given b) Not given	a) 0.025 ug/g b) 0.075 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, 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

Clam
RANGIA CUNEATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10876 Body		a) Not given b) Not given	a) 28.2+/-5.4 ppm b) 28.7+/-4.9 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, littleneck
PROTOTHACA STAMINEA

Tissue	Cases Exposure Route	Range	Mean	General Information
10877 Body, whole	a) 10 b) 6	a) Not given b) Not given	a) 1.15+/-0.09 ug/g b) 30.1 ng/g Dry wt S.E.	a) Baseline levels b) After 48 hr exposure to 8 ug/L Collected in intertidal area of Sequim Bay. Study to determine degree of bioconcentration, kinetics of accumulation, distribution after exposure to subtoxic levels. Washington, Sequim Bay AAS

(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

Clam, littleneck
PROTOTHACA STAMINEA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10878 Gills	a) 10 b) 6	a) Not given b) Not given	a) 2.38+/-0.11 ug/g b) 139.6+/-18.4 ng/g Dry wt S.E.	a) Baseline levels b) After 48 hr exposure to 8 ug/L Collected in intertidal area of Sequim Bay. Study to determine degree of bioconcentration, kinetics of accumulation, distribution after exposure to subtoxic levels. Washington, Sequim Bay AAS
10879 Mantle/Neck	6	Not given	29.6+/-4.2 ng/g Dry wt S.E.	After 48 hr exposure to 8 ug/L. Collected in intertidal area of Sequim Bay. Study to determine degree of bioconcentration, kinetics of accumulation, distribution after exposure to subtoxic levels. Washington, Sequim Bay AAS
10880 Muscle	6	Not given	16.5+/-1.8 ng/g Dry wt S.E.	After 48 hr exposure to 8 ug/L. Collected in intertidal area of Sequim Bay. Study to determine degree of bioconcentration, kinetics of accumulation, distribution after exposure to subtoxic levels. Washington, Sequim Bay AAS
10881 Shell	4	Not given	30.2+/-9.1 ng/g Dry wt S.E.	After 48 hr exposure to 8 ug/L. Collected in intertidal area of Sequim Bay. Study to determine degree of bioconcentration, kinetics of accumulation, distribution after exposure to subtoxic levels. Washington, Sequim Bay AAS
10882 Viscera	6	Not given	18.6+/-3.6 ng/g Dry wt S.E.	After 48 hr exposure to 8 ug/L. Collected in intertidal area of Sequim Bay. Study to determine degree of bioconcentration, kinetics of accumulation, distribution after exposure to subtoxic levels. Washington, Sequim Bay AAS

ENVIRONMENTAL EXPOSURE; DELIBERATE EXPOSURE; AQUATIC; BODY; GILLS; MUSCLES; VISCERA; MANTLE/NECK; SHELL; WATER POLLUTION; WASHINGTON

Hardy, J.T.; Roesijadi, G. 1982 Bulletin of Environmental Contamination and Toxicology 28:566-572

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

Cod
GADUS MORHUA

Tissue	Cases Exposure Route	Range	Mean	General Information
10883 Body	7	0.03-0.22 mg/kg Wet wt	0.07 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

Coot, American
FULICA AMERICANA

Tissue	Cases Exposure Route	Range	Mean	General Information
10884 Liver	a) 19 b0 10 c) 79 d) 40	a) Not detected-2.2 ppm b) Not detected-0.9 ppm c) Not detected-4 ppm d) Not detected-0.75 ppm Wet wt	a) 0.14 ppm b) 0.12 ppm c) 0.15 ppm d) 0.13 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 Study was to determine levels at coal-fired power plant ash pond and control site (Port Mansfield). Pre-startup samples in 8, 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

Crappie
POMOXIS sp.

Tissue	Cases Exposure Route	Range	Mean	General Information
10885 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

Dolphin, striped
STENELLA COERULEOALBA

Tissue	Cases Exposure Route	Range	Mean	General Information
10886 Adipose	a) 1 b) 1 c) 1	a) 0.14-0.22 ug/g b) 0.13-0.18 ug/g c) 0.14-0.16 ug/g Wet wt	a) 0.18+/-0.03 ug/g b) 0.16+/-0.02 ug/g c) 0.15+/-0.01 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 37.2+/-5.15, 26.7+/-3.41, 28.1+/-5.41, repectively. Japan, Taiji, Kii Peninsula AAS
10887 Adrenal gland	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.54 ug/g b) 0.51 ug/g c) 0.46 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
10888 Blood	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.05 ug/g b) 0.07 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
10889 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) 0.07 ug/g b) 0.02 ug/g c) 0.01 ug/g d) 0.01 ug/g e) 0.06 ug/g f) 0.06 ug/g g) 0.07 ug/g h) 0.04 ug/g i) 0.15 ug/g j) 0.06 ug/g k) 0.09 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

(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

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10890 Cartilage	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.01 ug/g b) 0.01 ug/g c) 0.03 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
10891 Cerebellum	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.41 ug/g b) 0.18 ug/g c) 0.09 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
10892 Cerebrum	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.39 ug/g b) 0.20 ug/g c) 0.09 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
10893 Diaphragm	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.06 ug/g b) 0.17 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
10894 Heart	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.09 ug/g b) 0.15 ug/g c) 0.09 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
10895 Intestine	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.13 ug/g b) 0.19 ug/g c) 0.17 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)

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

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10896 Kidney	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.07 ug/g b) 0.18 ug/g c) 0.13 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
10897 Liver	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.19 ug/g b) 0.18 ug/g c) 0.19 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
10898 Lung	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.17 ug/g b) 0.14 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
10899 Mammary gland	1	Not applicable	1.25 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
10900 Medulla oblongata	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.41 ug/g b) 0.22 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
10901 Muscle	a) 1 b) 1 c) 1	a) 0.06-0.10 ug/g b) 0.14-0.17 ug/g c) 0.09-0.14 ug/g Wet wt	a) 0.08+/-0.02 ug/g b) 0.16+/-0.01 ug/g c) 0.02+/-0.02 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
10902 Ovary	1	Not applicable	0.27 ug/g Wet wt	Female fetus, 12/78, wt 10 kg, age 11.6 mo. Japan, Taiji, Kii Peninsula AAS

(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

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10903 Pancreas	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.13 ug/g b) 0.29 ug/g c) 0.28 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
10904 Placenta	1	Not applicable	1.63 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS
10905 Skin	3	a) Not applicable b) Not applicable c) Not applicable d) Not applicable e) Not applicable f) Not applicable	a) 5.07 ug/g b) 7.94 ug/g c) 1.62 ug/g d) 1.05 ug/g e) 0.51 ug/g f) 0.43 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
10906 Spleen	3	a) Not applicable b) Not applicable c) Not applicable	a) 0.15 ug/g b) 0.24 ug/g c) 0.17 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
10907 Stomach	3	a) 0.04-0.22 ug/g b) 0.08-0.13 ug/g c) 0.11-0.15 ug/g Wet wt	a) 0.11 ug/g b) 0.11 ug/g c) 0.12 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
10908 Testis	1	Not applicable	0.51 ug/g Wet wt	Mature male, 12/78, wt 145 kg, age 16.5 mo. Japan, Taiji, Kii Peninsula AAS
10909 Umbilical cord	1	Not applicable	1.21 ug/g Wet wt	Pregnant female, 12/78, wt 163 kg, age 25.5 mo. Japan, Taiji, Kii Peninsula AAS

(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

Dolphin, striped
STENELLA COERULEOALBA

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10910 Uterus	a) 1 b) 1	a) Not applicable b) Not applicable	a) 1.30 ug/g b) 1.28 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
10911 Vagina	a) 1 b) 1	a) Not applicable b) Not applicable	a) 0.40 ug/g b) 0.12 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

Duck, mallard
ANAS PLATYRHYNCHOS

Tissue	Cases Exposure Route	Range	Mean	General Information
10912 Kidney	a) 29 b) 29 c) 23 Ingestion	a) 1.6-11.6 ppm b) Not detected-4.3 ppm c) Not detected	a) Not given b) Not given c) Not given	a) Fed 200 and 1200 ppm (as nickel sulfate) for 30 d after hatching b) 60 d c) 90 d Ranges of means at necropsy of sampled ducklings. Levels 2.7-74.4 ppm in those that died during study. Body weight and bone density (measured as weight/length ratio of humerus) significantly less ($p<0.005$) in ducklings fed 1200 ppm than in controls. Detection limit 1 ppm. Maryland, Patuxent Tremor, paresis began after 14 d at 1200 ppm. 71% died within 60 d. At 800 ppm, tremor began at 4 wks. 2 (of 24) died. AAS

(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

Duck, mallard
ANAS PLATYRHYNCHOS

(continued)

Tissue	Cases Exposure Route	Range	Mean	General Information
10913 Liver	a) 29 b) 29 c) 23 Ingestion	a) 1.2-3.7 ppm b) Not detected-2.1 ppm b) Not detected	a) Not given b) Not given c) Not given	a) Fed 200 and 1200 ppm (as nickel sulfate) for 30 d after hatching b) 60 d c) 90 d Ranges of means at necropsy of sampled ducklings. Levels 1.0-22.7 ppm in those that died during study. Body weight and bone density (measured as weight/length ratio of humerus) significantly less ($p<0.005$) in ducklings fed 1200 ppm than in controls. Detection limit 1 ppm. Maryland, Patuxent Tremor, paresis began after 14 d at 1200 ppm. 71% died within 60 d. At 800 ppm, tremor began at 4 wks. 2 (of 24) died. AAS

KIDNEYS; LIVER; AQUATIC; DELIBERATE EXPOSURE; METAL POISONING; NICKEL; BIOACCUMULATION; HEALTH HAZARDS; MARYLAND
Cain, B.W.; Pafford, E.A. 1981 Archives of Environmental Contamination and Toxicology 10:737-745

Duck, mottled
ANAS FULVIGULA

Tissue	Cases Exposure Route	Range	Mean	General Information
10914 Bone	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 2.5+/-0.3 mg/kg b) 2.8+/-0.3 mg/kg Wet wt S.E.	a) Without ingested shot b) With ingested shot in gizzard No significant difference. Texas, Chambers County ES
10915 Feathers	a) 16 b) 5 Ingestion	a) Not given b) Not given	a) 0.3+/-0.2 mg/kg b) 0.3+/-0.1 mg/kg Dry wt S.E.	a) Without ingested shot b) With ingested shot in gizzard Significant difference ($p<0.001$). 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

Eel
ANGUILLA ANGUILLA

Tissue	Cases Exposure Route	Range	Mean	General Information
10916 Body	6	0.02-0.31 mg/kg Wet wt	0.12 mg/kg Wet wt	Edible parts, mixed samples weighing about 20 kg. Collected from Lake IJssel, 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

Eel, American
ANGUILLA ROSTRATA

Tissue	Cases Exposure Route	Range	Mean	General Information
10917 Muscle	2	0.003-0.003 mg/kg Wet wt	0.003 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
10918 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) 0.08+/-0.01 ug/g b) 0.05+/-0.01 ug/g c) 0.11+/-0.04 ug/g d) 0.08+/-0.01 ug/g e) 0.17+/-0.05 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

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

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15. Supplementary Notes

16. Abstract (Limit: 200 words)

The database provides a central source of systematically collected and organized body-burden data that facilitates the early identification of actual or potential human exposure to environmental contaminants and the assessment of the significance of such exposure. Data included are obtained through routine manual searches of selected scientific journals, augmented by computer searches.

The database, which includes the separately published files, Chemicals Identified in Humans and Chemicals Identified in Animals, contains information on more than 2000 chemicals. The database is used in exposure, hazard and risk assessment; identifying potential human and environmental health problems including sources of contamination; planning research and comparing results; and in teaching at medical and public health schools.

The database is under the aegis of the Interagency Collaborative Group on Environmental Carcinogenesis, National Cancer Institute (NCI), and is maintained by the Health and Environmental Information Section, Science Applications International Corporation under the direction of the Exposure Evaluation Division, U.S. Environmental Protection Agency (EPA). Funding is provided through interagency agreements involving NCI, EPA, Analysas Corporation, and the U.S. Department of Energy.

17. Document Analysis a. Descriptors

Body burden
Animal tissues/body fluids
Residues

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77) (Formerly NTIS-35) Department of Commerce