

EPA/620/R-94/024
March 1994

Environmental Monitoring and Assessment Program (EMAP) Cumulative Bibliography

edited by

Judith S. Lear
ManTech Environmental Technology, Inc.
Research Triangle Park, NC 27709

Cynthia B. Chapman
ManTech Environmental Technology, Inc.
Corvallis, OR 97333

Contract No. 68-D0-0106 and 68-C8-0006

Project Officer

Berne Bennett
Quality Assurance and Technical Support Division
Atmospheric Research and Exposure Assessment Laboratory
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

EMAP Center
Environmental Monitoring and Assessment Program
Office Of Research And Development
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711



Printed on Recycled Paper

Abstract

The *Environmental Monitoring and Assessment Program (EMAP) Cumulative Bibliography* contains a list of EMAP-related documents from the program's inception in 1989 through 1993. All citations included in this document have been verified and meet criteria based on authorship, peer-review, funding, and publication.

Key words:

environmental sciences--bibliography, environmental monitoring--bibliography, environmental literature, environmental policy literature, environmental policy--bibliography, risk assessment--bibliography, ecology--United States, ecological risk assessment, environmental impact assessment, environmental indicators, indicators (biology), biological diversity, USEPA-EMAP

Preferred Citation:

Lear, J.S., and C.B. Chapman, eds. 1994. *Environmental Monitoring and Assessment Program (EMAP) Cumulative Bibliography*. EPA/620/R-94/XXX. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring and Assessment Program, EMAP Center.

Notice:

The information in this document has been funded wholly or in part by the United States Environmental Protection Agency under contracts #68-D0-0106 and #68-C8-0006 to ManTech Environmental Technology Inc. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Acknowledgements

This document was prepared under the direction of D. Eric Hyatt, Technical Coordinator, EMAP-Assessment and Reporting and Joan Currin, Technical Information Manager, EMAP Center, Research Triangle Park, NC. Original lists of EMAP authors and their publications were provided by D. Eric Hyatt; Thomas L. Baugh, Staff Director (EMAP - Headquarters, Washington, DC); Anthony R. Olsen, Technical Coordinator, Design and Statistics (Environmental Research Laboratory (ERL), Corvallis, OR); and Anne McFarland, University of North Carolina - Chapel Hill, Chapel Hill, NC.

Assistance in verifying references was provided by the staff at Oregon State University's Kerr Library and CDROM, the EPA ERL - Corvallis library (Stephanie Bianchi and Barbara Hagler, Labat-Anderson, Inc.), EMAP Center Information Services (Elizabeth Schmidt and Paula Lynch, University of North Carolina - Chapel Hill) and the EPA Environmental Research Center (ERC) library, Research Triangle Park, NC (Beth Koose, University of North Carolina - Chapel Hill).

Preface

The Environmental Monitoring and Assessment Program (EMAP) integrates ecological research, monitoring, and assessment activities from many federal agencies, universities, and contractors. EMAP scientists and administrators produce technical reports, program plans, statistical summaries, and project reports which become official EPA documents after peer review and clearance. The program's scientists and administrators also produce articles, letters, responses, and reviews for publication in the peer-reviewed scientific literature. This bibliography is to serve as an index to these published materials, not to chronicle what has been done. This bibliography does not include materials not available to the general community (e.g., information presented at symposia through lectures and posters and other nonpermanent records).

EMAP's authors have made conscious efforts to provide information that fits the needs of its users as well as preserves the accuracy of the information and the known confidence of the data. To help address the users' needs, EMAP Center has established an electronic bibliography of EMAP documents. The EMAP cumulative bibliography will be published annually. The ultimate goal of the program is to place the EMAP bibliography "online" and make its resources available to its users via computer.

Contents

Abstract.....	.ii
Acknowledgements.....	.iii
Prefaceiv
Introduction.....	.1
EMAP Publications and Technical Information2
Index (Authors).....	.17

Introduction

The goals of the Environmental Monitoring and Assessment Program (EMAP) are to monitor and assess the condition of the Nation's resources, thereby contributing to decisions on environmental protection and management. EMAP works to attain four objectives:

- ◆ *Estimate the current status, trends, and changes in selected indicators of the condition of the Nation's ecological resources on a regional basis with known confidence.*
- ◆ *Estimate the geographic coverage and extent of the Nation's ecological resources with known confidence.*
- ◆ *Seek associations between selected indicators of natural and anthropogenic stresses and indicators of condition of ecological resources.*
- ◆ *Provide annual statistical summaries and periodic assessments of the Nation's ecological resources.*

Both the goals and the objectives require that EMAP provide decision makers with useful information; they also require that EMAP identify and clearly state important social values associated with ecological resources and policy.

From EMAP's inception, EMAP scientists and administrators have been both producers and consumers of program information and documents. At the same time, they have demanded full participation in the administration of that information, from the review stage to the dissemination and cataloging. The process of managing the creation, flow, and archiving of EMAP documents has been evolutionary; as the program has matured, EMAP authors have come to understand the requirements necessary to assure quality and access.

Two approaches can be taken to index publications in a developing program. First, components of the program can track publications of its personnel and later compile and verify a program-wide list. The other approach is to look into the literature of science and public policy through public sources, cross correlating public sources against government publication records. The documents in this publication were compiled and verified using strategies combining both approaches.

First, lists of authors and known publications from EMAP activities were collected from the EMAP administrators responsible for maintaining partial lists. References were also compiled from lists of both current and upcoming publications routinely printed in monthly progress reports, *EMAP News*,

and the *EMAP Monitor*. These sources were verified by means of a variety of electronic and paper bibliographic databases.

This bibliography catalogs documents that were written by EMAP personnel or produced under its aegis. There are citations in the bibliography of documents which supported the early stages of the program but were not strictly speaking EMAP documents. The earlier documents were prepared under predecessor programs to EMAP. This bibliography will be updated annually with EMAP documents.

The following criteria was considered in the selection of citations for the EMAP bibliographic database:

1. The work was authored by grantees, contractors, and/or employees of the federal government.
2. The work was funded wholly or in part by EMAP (up to three years following the agreement/contract expiration).
3. The topics of the work apply to EMAP research, monitoring, or assessment activities (as judged by title, abstract, or key words).
4. The work had passed a peer review process.
5. The work was published by a nongovernmental source or a government agency (assigned a number and printed for public dissemination by EPA (EPA #), by the National Technical Information Service (NTIS) (PB #), or by the Government Printing Office (Supt. of Docs. #)).

Record numbers are provided for each publication. The author index cross-references authors and publications by record number. This document and its supporting electronic database are works-in-progress and will be refined regularly to remain current. Every author is asked to contribute future verified citations to the EMAP Center Technical Information Manager (TIM) so that it can be maintained.

EMAP Publications and Technical Information

A

- 10 Adamus, P. R. 1992. Choices in monitoring wetlands. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 571-92. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 20 Alexander, S. A. 1992. *Forest Health Monitoring 1991 statistical summary*. (EPA/600/3-91/051, PB92-118447). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring and Assessment Program.
- 30 Alexander, S. A., and J. E. Barnard. 1993. *Forest Health Monitoring 1992 activities plan*. (EPA/620/R-93/002, PB94-114717). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 40 Alexander, S. A., J. A. Carlson, and J. E. Barnard. 1992. The visual damage survey: A study to evaluate the eastern forest condition. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 361-72. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 50 Arndt, U. 1992. Bioindication and the European perspective and position. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1485-90. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 60 ---. 1992. Key reactions in forest disease used as effects criteria for biomonitoring. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 829-40. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.

B

- 70 Baker, J. R., and D. W. Sutton. 1991. *Environmental Monitoring and Assessment Program six-year*

logistics options and alternatives. (EPA/600/X-91/085). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.

- 80 Balogh, M. E., and R. Lunetta. 1990. Evaluation of remote sensing for Environmental Monitoring and Assessment Program landscape characterization. Abstract in: *1990 ACSM-ASPRS Fall Convention Technical Papers*. p. B-152-53. Bethesda, MD: American Society for Photogrammetry and Remote Sensing and American Congress on Surveying and Mapping.
- 90 Barrows, E. H. 1990. Analysis and integration of ecological monitoring data. In: *Proceedings on the International Symposium on the Design of Water Quality Information Systems*. R. C. Ward, J. C. Loftis, G. B. McBride, eds. Colorado Water Resources Institution Information Series No. 61. p. 276-86.
- 100 Bascietto, J. J., and K. A. Higley. 1992. Ecological assessment at U.S. Department of Energy environmental restoration sites. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1219-38. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 110 Beardsley, D. P. 1992. Using environmental indicators for policy and regulatory decisions. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 61-63. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 120 Berstein, B. 1992. A framework for trend detection: Coupling ecological and managerial perspectives. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1101-14. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 130 Bezuneh, T., K. Yilala, and T. Kibreab. 1992. The vulnerability of agricultural systems to ecological and climate change in sub-Saharan Africa (a summary).

- In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 705-712. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 140 Breckenridge, R. P., W. G. Kepner, and D. A. Mouat. 1993. Monitoring for assessing sustainability of arid ecosystems. In: *Proceedings of the 25th International Symposium on Remote Sensing and Global Environmental Change*. p. I-583-94.
- 150 Brethauer, E. W. 1992. Protecting the environment: A research strategy for the 1990s-An indicator of change in EPA. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 53-59. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 160 Brewer, G. D., and F. M. Piltz. 1992. Monitoring benthic ecosystem process on the outer continental shelf: An integrated approach for offshore southern California. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1355-83. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 170 Bromberg, S. M. 1990. Identifying ecological indicators: An environmental monitoring and assessment program. (EPA/600/J-90/306, PB91-146605). *Journal of the Air and Waste Management Association* 40 (7):976-78.
- 180 Bromenshenk, J. 1992. Site-specific and regional monitoring with honey bees: Case study comparisons. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 689-704. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- C**
- 190 Carr, D. B., A. R. Olsen, and D. White. 1992. Hexagon mosaic maps for display of univariate and bivariate geographical data. *Cartography and Geographic Information Systems* 19 (4):228-36, 271.
- 200 Coates, J. F. 1992. Factors shaping and shaped by the environment: 1990-2010. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 7-52. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 210 Cooter, E. J., S. K. LeDuc, L. Truppi, and D. R. Block. 1991. *Climate data and analysis for the New England Forest Health Monitoring project*. (EPA/600/D-91/107, PB91-196071). Research Triangle Park, NC: U. S. Environmental Protection Agency, Atmospheric Research and Exposure Assessment Laboratory.
- 220 ---. 1991. *Role of climate in forest monitoring and assessment: A New England example*. (EPA/600/3-91/074, PB92-132885). Research Triangle Park, NC: U.S. Environmental Protection Agency, Atmospheric Research and Exposure Assessment Laboratory.
- 230 Cordy, C. B., and D. A. Griffith. 1993. Efficiency of least squares estimators in the presence of spatial autocorrelation. *Communications in Statistics - Simulation* 22:1161-79.
- 240 Cordy, C. B. 1993. An extension of the Horvitz-Thompson theorem to point sampling from a continuous universe. *Statistics and Probability Letters* 18:353-62.
- 250 Cormier, S. M., and R. N. Racine. 1992. Biomarkers of environmental exposure and multivariate approaches for assessment and monitoring. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 229-42. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 260 Costa, J. E., B. L. Howes, A. E. Giblin, and I. Valiela. 1992. Monitoring nitrogen and indicators of nitrogen loading to support management action in Buzzards Bay. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 499-531. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 270 Costanza, R. 1992. Ecological economic issues and considerations in indicator development, selection and use: Toward an operational definition of system health. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1491-1502. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 280 Couch, J. A., and J. W. Fournie. 1992. *Pathobiology of marine and estuarine organisms*. (EPA/600/R-92/232, PB93-131217). Gulf Breeze, FL: U. S. Environmental Protection Agency, Environmental Research Laboratory.
- 290 Coughenour, M. 1992. Spatial modeling and landscape characterization of an African pastoral ecosystem: A prototype model and its potential use for monitoring drought. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 787-810. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 300 Cowling, E. B. 1992. Challenges at the interface between ecological and environmental monitoring: Imperatives for research and public policy. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1461-80. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.

D

- 310 Daly, C. 1990. Estimation of wet deposition to surface water systems for the TIME project: A geographical approach. In: *Proceedings of the International Symposium on the Design of Water Quality Information Systems*. R. C. Ward, J. C. Loftis, G. B. McBride, eds. Colorado Water Resources Institute Information Series No. 61. p. 436-46.
- 320 Debinski, D. M., and P. F. Brussard. 1992. Biological diversity assessment in Glacier National Park, Montana: I. Sampling design. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 393-407. (EPA/600/9-91/039, PB92-11413). New York, NY: Elsevier Applied Science.
- 330 Dionne, M., and J. R. Karr. 1992. Ecological monitoring of fish assemblages in Tennessee river reservoirs. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 259-81. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 340 Dixit, S. S., B. F. Cumming, J. P. Smol, and J. C. Kingston. 1992. Monitoring environmental changes in lakes using algal microfossils. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1135-55. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 350 Driscoll, C. T., and R. Van Dreasen. 1993. Seasonal and long-term temporal patterns in the chemistry of Adirondack lakes. *Water, Air, and Soil Pollution* 67 (3-4):319-44.

E

- 360 Earle, S. A. 1992. Ecological indicators of marine condition. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 65. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 370 Environmental Monitoring and Assessment Program. 1992. *1992 Project descriptions*. (EPA/600/R-92/146). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 380 ---. 1991. *America's Ecological Report Card: Environmental Monitoring and Assessment Program (EMAP)*. [Videocassette]. (EPA/600/V-92/001, PB92-780865). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.

- 390 ---. 1991. *A desktop information and mapping system for near coastal areas of the mid-Atlantic United States: Supporting EPA's Environmental Monitoring and Assessment Program*. Rockville, MD: U.S. Department of Commerce, National Oceanic and Atmospheric Administration.
- 400 ---. 1992. *EMAP monitor. March 1992*. (EPA/600/M-91/051, PB92-239557). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 410 ---. 1993. *EMAP monitor. February 1993*. (EPA/620/N-92/001, PB93-163020). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 420 ---. 1990. *Environmental Monitoring and Assessment Program overview*. (EPA/600/9-90/001). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development, Office of Modeling Monitoring Systems and Quality Assurance.
- 430 ---. 1990. *Environmental Monitoring and Assessment Program 1990 project descriptors*. (EPA/600/9-90/028, PB93-116150). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 440 ---. 1991. *Environmental Monitoring and Assessment Program surface waters implementation plan: Northeast pilot lake study, Summer 1991*. (EPA/600/4-91/019, PB92-139948). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 450 ---. 1992. *Environmental Monitoring and Assessment Program (EMAP) Great Lakes monitoring and research strategy*. (EPA/620/R-92/001). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 460 ---. 1993. *Environmental Monitoring and Assessment Program: Master glossary*. (EPA/620/R-93/013, PB94-121829). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring and Assessment Program.
- 470 ---. 1990. *Operational procedures for peer review, first edition*. Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 480 Erhardt, W., H. Gebhardt, K. Hopker, A. Keitel, T. Mayer, K. Kreimes, L. Murmann-Kristen, R. Umlauff-Zimmermann, and R. D. Zimmermann. 1992. Biological monitoring of air pollution effects in the state of Baden-Wurttemberg, Federal Republic of Germany. In: *Ecological Indicators*, Vol. 2, D. H.

- McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 917-28. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 490 Ernst, T. L., and N. C. Leibowitz. 1993. Statistical evaluation of EMAP-Wetlands classification. In: *Proceedings of INTERCOL IV International Wetlands Conference*. (EPA/600/A-93/121, PB93-199446). Columbus, OH:
- F**
- 500 Folmar, L. 1990. *Diagnostic indicators for marine systems: Physiology and biochemistry*. (EPA/600/X-90/287). Gulf Breeze, FL: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratory.
- 510 Ford, J., and D. H. Landers. 1990. Contamination of U.S. arctic ecosystems by long-range transport of atmospheric contaminants. In: *Proceedings of the International Conference on the Role of the Polar Regions in Global Change*. (EPA/600/D-90/190, PB91-137109). Washington, DC: U.S. Department of Agriculture, Forest Service.
- 520 Ford, J., T. Young, and J. Stoddard. 1990? Long-term monitoring for aquatic effects of acidic deposition: An approach to regionalizing information from existing monitoring sites. In: *Proceedings of the 5th Annual Meeting of the International Cooperative Programme on Assessment and Monitoring of River and Lake Acidification*.
- 530 Ford, J., J. L. Stoddard, and C. F. Powers. 1993. Perspectives on environmental monitoring: An introduction to the U. S. EPA long-term monitoring (LTM) project. *Water, Air, and Soil Pollution* 67 (3-4):247-55.
- 540 Foresta, R. 1992. Developing-world bureaucracies as partners in environmental management. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1191-1202. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 550 Franson, S. 1990. *Data confidentiality in the Environmental Monitoring and Assessment Program - issues and recommendations*. (EPA/600/X-90/129). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 560 Franson, S. E., ed. 1993. *Environmental Monitoring and Assessment Program: EMAP-Arid Colorado plateau pilot study - 1992*. (EPA/620/R-93/001, PB93-181618). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 570 ---. 1993. *Project summary, Environmental Monitoring and Assessment Program: EMAP-Arid Colorado plateau pilot study - 1992: Implementation plan*. (EPA/620/SR-93/001). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 580 Frithsen, J. B., J. Gerritsen, G. Saul, M. C. Fabrizio, and A. F. Holland. 1991. *Example environmental assessment report for estuaries*. (EPA/600/4-91/026, PB92-102656). Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Research and Development.
- 590 Frithsen, J. B., and A. F. Holland. 1992. Benthic communities as indicators of ecosystem condition. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 459-60. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 600 Frost, T. M., S. R. Carpenter, and T. K. Kratz. 1992. Choosing ecological indicators: Effects of taxonomic aggregation on sensitivity to stress and natural variability. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 215-227. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- G**
- 610 Garner, J. H. B., D. E. Hyatt, and D. A. Vallero. 1992. Assessing exposure and risk to the nation's ecological resources. In: *Measurement of Toxic and Related Air Pollutants*. VIP-25: p. 957-61. (EPA/600/R-92/131). Pittsburgh, PA: Air & Waste Management Association.
- 620 Gentile, J. H., and M. W. Slimak. 1992. Endpoints and indicators in ecological risk assessments. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1385-97. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 630 Gillespie, J. R., M. Miller-Weeks, C. Barnett, and W. Burkman. 1993. *Summary Report, Forest Health Monitoring, New England/Mid-Atlantic, 1992*. (NENNA-INF-115-R93). USDA Forest Service.
- 640 Goldberg, E. 1992. Rational marine pollution monitoring. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1075-87. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 650 Goldman, L. R., M. Gomez, S. Greenfield, L. Hall, B. S. Hulka, W. E. Kaye, J. A. Lybarger, D. H. McKenzie, R. S. Murphy, D. G. Wellington, and T. Woodruff. 1992. Use of exposure databases for status

- and trends analysis. *Archives of Environmental Health* 47 (6):430-38.
- 660 Gosz, J., R. R. Parmenter, and D. Marshall. 1992. Ecological indicators in a desert/grassland transition. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 739-64. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 670 Greenwalt, L. A. 1992. Global Indicators: What the people expect. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 109-14. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- H**
- 680 Haire, M. S., N. N. Panday, D. K. Domotor, and D. G. Flora. 1992. Chesapeake Bay water quality indices. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1115-34. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 690 Hammond, A. 1992. The greenhouse index: A global ecological indicator (summary). In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1013-14. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 700 Hazard, J. W., and B. E. Law. 1989. *Forest survey methods used in the USDA Forest Service*. (EPA/600/3-89/065, PB90-179672). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 710 Heck, W. W., C. L. Campbell, G. R. Hess, J. R. Meyer, T. J. Moser, S. L. Peck, J. O. Rawlings, and A. L. Finkner. 1991. *Environmental Monitoring and Assessment Program: Agroecosystem monitoring and research strategy*. (EPA/600/4-91/013, PB93-100071). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 720 Heck, W. W., C. L. Campbell, A. L. Finkner, C. M. Hayes, G. R. Hess, J. R. Meyer, M. J. Munster, D. Neher, S. L. Peck, J. O. Rawlings, C. N. Smith, and M. B. Tooley. 1992. *Environmental Monitoring and Assessment Program - Agroecosystem 1992 pilot project plan*. (EPA/620/R-93/010, PB94-121837). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 730 Hedtke, S., A. Pilli, D. Dolan, G. McRae, and B. Goodno. 1992. *Environmental Monitoring and Assessment Program (EMAP) Great Lakes monitoring and research strategy*. (EPA/620/R-92/001, PB94-114832). Duluth, MN: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 740 Hinckley, D., and G. Tierney. 1992. Early ecological indicators of climate change. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1157-64. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 750 Hirvonen, H. 1992. The development of regional scale ecological indicators: A Canadian approach. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 901-15. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 760 Hoefs, N. J., and T. P. Boyle. 1992. Contribution of fish community metrics to the index of biotic integrity in two Ozark rivers. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 283-303. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 770 Holland, A. F., ed. 1990. *Near coastal program plan for 1990: Estuaries*. (EPA/600/4-90/033, PB93-116176). Narragansett, RI: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 780 Holland, A. F., J. K. Summers, K. J. Scott, and J. F. Paul. 1991. Preliminary results of EMAP 1990 field sampling in estuaries. *Bulletin of the Ecological Society of America* 72 (2):143.
- 790 Holland, M. M., D. M. Lawrence, D. J. Morrin, C. Hunsaker, D. Inouye, A. Janetos, H. R. Pulliam, W. Robertson, and J. Wilson. 1992. *Profiles of ecologists: Results of a survey of the membership of the Ecological Society of America*. Washington, DC: Ecological Society of America Public Affairs Office.
- 800 Hughes, R. M. 1989. Ecoregional biological criteria. In: *Water Quality Standards for the 21st Century*. p. 147-51. Washington, DC: U.S. Environmental Protection Agency, Office of Water.
- 810 ---. 1990. Ecoregions and biological integrity of fish assemblages. *American Fisheries Society Oregon Chapter Annual Meeting Symposium* 27:31.
- 820 ---. 1990. The IBI: A quantitative, easily communicated assessment of the health and complexity of entire fish communities. *U. S. Fish and Wildlife Service Biological Report* 90 (5):26-28.
- 830 ---. 1993. *Stream indicator and design workshop*. (EPA/600/R-93/138, PB93-222321). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.

- 840 ---. 1990. What can biological monitoring tell us about the environmental health of aquatic ecosystems? *Proceedings of the International Symposium on the Design of Water Quality Information Systems*. R. C. Ward, J. C. Loftis, G. B. McBride, eds. Colorado Water Resources Institute Information Series No. 61. p. 447-460.
- 850 Hughes, R. M., S. A. Heiskary, W. J. Matthews, and C. O. Yoder. 1992. Use of ecoregions in biological monitoring. In: *Biological Monitoring of Freshwater Ecosystems*, S. L. Loeb, ed. Chelsea, MI: Lewis Publishers.
- 860 Hughes, R. M., and R. F. Noss. 1992. Biological diversity and biological integrity: Current concerns for lakes and streams. *Fisheries* 17 (3):11-19.
- 870 ---. 1991. Lake and stream indicators for the Environmental Monitoring and Assessment Program. In: *Proceedings of the International Symposium on Ecological Indicators*. (EPA/600/D-91/095, PB91-191080). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 880 Hughes, R. M., T. R. Whittier, S. A. Thiele, J. E. Pollard, D. V. Peck, S. G. Paulsen, D. McMullen, J. Lazorchak, D. P. Larsen, W. L. Kinney, P. R. Kaufmann, S. Hettke, S. S. Dixit, G. B. Collins, and J. R. Baker. 1992. Lake and stream indicators for U.S. EPA's Environmental Monitoring and Assessment Program. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 305-335. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 890 Hunsaker, C. T., D. Carpenter, and J. J. Messer. 1990. Ecological indicators for regional monitoring. *Bulletin of the Ecological Society of America* 71 (3):165-72.
- 900 Hunsaker, C. T., and D. E. Carpenter., eds. 1990. *Environmental Monitoring and Assessment Program: Ecological indicators*. (EPA/600/3-90/060, PB91-14196). Research Triangle Park, NC: U.S. Environmental Protection Agency, Atmospheric Research and Exposure Assessment Laboratory.
- 910 Hunsaker, C. T., R. L. Graham, G. W. Suter, R. V. O'Neill, L. W. Barnhouse, and R. H. Gardner. 1990. Assessing ecological risk on a regional scale. *Environmental Management* 14 (3):325-32.
- 920 Hunsaker, C. T., D. A. Levine, S. P. Timmins, B. L. Jackson, and R. V. O'Neill. 1992. Landscape characterization for assessing regional water quality. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 997-1006. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 930 Hyatt, D. E. 1992. "Meetings/Symposia (Global) Database Management" (Review). *Bulletin of the Ecological Society of America* 73 (2):137.
- 940 Hyatt, D. E., and O. Gutenson., eds. 1992. *Biological populations as indicators of environmental change*. (EPA/230/R-92/011). Washington, DC: U.S. Environmental Protection Agency, Office of Policy, Planning, and Evaluation.
- J**
- 950 Jager, H. I., and W. S. Overton. 1993. Explanatory models for ecological response surfaces. In: *Environmental Modeling with GIS*, M. F. Goodchild, B. O. Parks, and L. T. Steyaert, eds. p. 422-31. New York, NY: Oxford University Press.
- 960 Jenkins, K. D., and B. M. Sanders. 1992. Monitoring with biomarkers: A multi-tiered framework for evaluating the ecological impacts of contaminants. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1279-93. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 970 Jones, K. B. 1991. The Environmental Monitoring and Assessment Program: An ecological monitoring program for the 1990's and beyond. In: *GIS/LIS '90 Proceedings*. 2: p. 669-81. Bethesda, MD: American Society for Photogrammetry and Remote Sensing, American Congress on Surveying and Mapping.
- 980 ---. 1990. Habitat use and predatory behavior of *Thamnophis-cyrtopsis* Serpentes Colubridae in a seasonally variable aquatic environment. *Southwestern Naturalist* 35 (2):115-22.
- 990 Jorgensen, S. E. 1992. Ecological indicators and ecological modelling. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 201-09. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- K**
- 1000 Kahl, J. S., T. A. Haines, S. A. Norton, and R. B. Davis. 1993. Recent trends in the acid-base status of surface waters in Maine, USA. *Water, Air, and Soil Pollution* 67 (3-4):281-300.
- 1010 Kay, J. J., and E. D. Schneider. 1992. Thermodynamics and measures of ecological integrity. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p.

- 159-82. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1020 Kellar, P., P. Suk, and A. Beach. 1991. *Environmental Monitoring and Assessment Program: 1991 Project descriptors.* (EPA/600/4-91/015, PB92-114479). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 1030 Kent, D. M., R. J. Reimold, J. M. Kelly, and C. E. Tammi. 1992. Coupling wetlands structure and function: Developing a condition index for wetlands monitoring. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 559-70. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1040 Kepner, W. G. 1993. *Arid ecosystems 1993 Implementation plan: Colorado plateau plot design study.* (EPA/620/R-93/016). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 1050 Kepner, W. G., C. A. Fox, J. R. Baker, R. Breckenridge, and C. Elvidge. 1991. *Arid ecosystems strategic monitoring plan, 1991.* (EPA/600/4-91/018, PB93-100139). Las Vegas, NV: U. S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 1060 Kisner, D., D. M. Muchoney, S. Pelczarski, K. K. Stout, and R. Sullivan. 1990. *EMAP landscape characterization information requirements summary.* (TS-PIC-90385). Warrenton, VA: U.S. Environmental Protection Agency, Environmental Photographic Interpretation Center.
- 1070 Klemm, D. J., and J. M. Lazorchak., eds. 1993. *Environmental Monitoring and Assessment Program, Surface Waters and Region 3 Regional Environmental Monitoring and Assessment Program, 1993 pilot field operations and methods manual, streams.* Cincinnati, OH: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring Systems Laboratory.
- 1080 Klopfatek, J. 1992. Cryptogamic crusts as potential indicators of disturbance in semi-arid landscapes. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 773-86. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1090 Knapp, C. M., D. R. Marmorek, J. P. Baker, K. W. Thornton, J. M. Klopfatek, and D. F. Charles. 1991. *Indicator development strategy for the Environmental Monitoring and Assessment Program.* (EPA/600/3-91/023, PB91-168500). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1100 Kromroy, K., M. F. Olsen, D. F. Grigal, D. R. French, and G. H. Amundson. 1992. Testing a biological system for indicating ozone in Minnesota. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 675-88. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1110 Kucera, R., and B. E. Martin., eds. 1991. *FY91 indicator evaluation field study for Environmental Monitoring and Assessment Program - Forests.* Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Research and Development, Atmospheric Research and Exposure Assessment Laboratory.
- 1120 Kucera, R., C. J. Palmer, and E. R. Smith. 1992. Indicator evaluation. In: *Forest Health Monitoring 1992 Activities Plan*, S. A. Alexander, and J. E. Barnard, eds. (EPA/620/R-93/002, PB94-114717). Washington, DC: U.S. Environmental Protection Agency.
- 1130 Kutz, F. W., R. A. Linthurst, C. Riordan, M. Slimak, and R. Frederick. 1992. Ecological research at EPA--new directions. *Environmental Science & Technology* 26 (5):860-66.
- 1140 Kutz, F. W., and R. A. Linthurst. 1990. A systems-level approach to environmental assessment. *Toxicological and Environmental Chemistry* 28 (2-3):105-14.
- L**
- 1150 LaBau, V. J. 1993. Regional monitoring with plot networks. *Environmental Monitoring and Assessment* 26 (2/3):283-94.
- 1160 Landers, P. B. 1992. Ecological indicators: Panacea or liability? In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1295-1318. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1170 Larsen, D. P., D. L. Stevens, A. R. Selle, and S. G. Paulsen. 1991. Environmental Monitoring and Assessment Program -- Surface Waters: A northeast lakes pilot. (EPA/600/J-92/417, PB93-135747). *Lakes and Reservoir Management* 7 (1):1-11.
- 1180 Larsen, D. P., and S. J. Christie., eds. 1993. *EMAP-Surface Waters 1991 pilot report.* (EPA/620/R-93/003, PB93-156008). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring and Assessment Program.
- 1190 Lazorchak, J., C. Palmer, and J. Lawrence. 1990. *Proceedings of the Third Annual Ecological Quality*

- Assurance Workshop, Canada Centre for Inland Waters.* Cincinnati, OH: U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory.
- 1200 Leibowitz, N. C., T. L. Ernst, N. S. Urquhart, S. Stehman, and D. Roose. 1993. *Evaluation of EMAP-Wetlands sampling design using national wetland inventory data.* (EPA/620/R-93/008, PB93-202851). Corvallis, OR: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratory.
- 1210 Leibowitz, N. C., L. Squires, and J. P. Baker. 1991. *Environmental Monitoring and Assessment Program: Research plan for monitoring wetland ecosystems.* (EPA/600/3-91/010, PB91-149526). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1220 Lesser, V. M. 1992. *A comparison of periodic survey designs employing multi-stage sampling.* (Institute of Statistics Series 1897T). Chapel Hill, NC: University of North Carolina - Chapel Hill, Department of Biostatistics.
- 1230 Linthurst, R. A., K. W. Thornton, and L. E. Jackson. 1992. Integrated monitoring of ecological condition: Issues of scale, complexity and future change. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1421-41. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1240 Longest II, H. L. 1992. Superfund-environmental progress? A report on environmental indicators. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1203-10. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1250 Ludwig, J., and D. J. Tongway. 1992. Monitoring the condition of Australian arid lands: Linked plant-soil indicators. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 765-72. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1260 Lunetta, R. S., R. G. Congalton, L. D. Fenstermaker, J. R. Jensen, K. C. McGwire, and L. R. Tinney. 1991. Remote-sensing and geographic information-system data integration: Error sources and research issues. *Photogrammetric Engineering and Remote Sensing* 57 (6):677-87.
- M**
- 1270 Macauley, J. M., J. K. Summers, P. T. Heitmuller, V. D. Engle, and A. M. Adams. 1993. *Louisianian Province statistical summary: EMAP-Estuaries: 1992.* (EPA/620/R-94/002). U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratory: Gulf Breeze, FL.
- 1280 Mace, T. M. 1991. Multistage remote sensing for a national environmental monitoring program database. In: *GIS/LIS '90 Proceedings*. Vol. 2: p. 691-700. Bethesda, MD: American Society for Photogrammetry and Remote Sensing, American Congress on Surveying and Mapping.
- 1290 Mata, N. 1991. *Standard operating procedures for EMAP information management technical workgroups.* (TS-PIC-91383). Warrenton, VA: U.S. Environmental Protection Agency.
- 1300 McAllister, L., T. Ernst, and B. Huntly. 1993. *Research strategy for the Environmental Monitoring and Assessment Program-Wetlands 1993 Gulf of Mexico estuarine emergent salt marsh pilot study, phase 2.* (EPA/620/R-93/015). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1310 McDonald, L. L., and B. F. J. Manly. 1992. *Statistical inference procedures for probability selection functions in long term monitoring programs.* (EPA/620/R-93/004, PB93-163012). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1320 McKenzie, D. H. 1992. Synthesizing indicator needs of scientific, policy and regulatory communities. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1503-06. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1330 McKenzie, D. H., D. E. Hyatt, and V. J. McDonald. 1992. *Ecological Indicators*, Vols. 1 and 2, (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1340 Mendelsohn, I. A., and K. L. McKee. 1992. Indicators of environmental stress in wetland plants. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 603-24. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1350 Menzer, R. E., J. W. Fournie, and L. Folmar. 1990. *Use of the Center for Marine and Estuarine Disease of the Gulf Breeze Environmental Research Laboratory in supporting EMAP-Near Coastal.* (EPA/600/X-90/289). Gulf Breeze, FL: U. S. Environmental Protection Agency, Office of Research and Development.
- 1360 Messer, J. J. 1989. Keeping a closer watch on ecological risks. *EPA Journal* 15:34-36.

- 1370 Messer, J. 1990. Why monitor? In: *Proceedings of the International Symposium on the Design of Water Quality Information Systems*. R. C. Ward, J. C. Loftis, G. B. McBride, eds. Colorado Water Resources Institute Information Series No. 61. p. 16-21.
- 1380 Messer, J. J., R. A. Linthurst, and W. S. Overton. 1991. An EPA program for monitoring ecological status and trends. *Environmental Monitoring and Assessment* 17 (1):67-78.
- 1390 Messer, J. J., R. A. Linthurst, and C. Riordan. 1989. A national program for environmental monitoring and assessment. In: *Air Pollution Effects on Vegetation, Including Forest Ecosystems, Proceedings of the Second U.S./U.S.S.R. Symposium*. R. D. Nobel, J. L. Martin, K. S. Jensen, eds. p. 211-215. Broomall, PA: USDA Forest Service, Northeastern Forest Experiment Station.
- 1400 Messer, J. J. 1992. Indicators in regional ecological monitoring and risk assessment. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 135-46. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1410 Meyer, J. R., C. L. Campbell, T. J. Moser, G. R. Hess, J. O. Rawlings, S. Peck, and W. Heck. 1992. Indicators of the ecological status of agroecosystems. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 629-58. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1420 Milne, B. T. 1992. Indications of landscape condition at many scales. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 883-95. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1430 Minor, T. B., T. G. Wade, J. M. Lancaster, and D. A. Mouat. 1993. The use of GIS in the development of a drylands risk index: A hypothetical assessment of desertification. In: *Proceedings of the 13th Annual Environmental Systems Research Institute User's Conference*. Vol. 1: p. 235-47.
- 1440 Mitsch, W. J. 1992. Ecological indicators for ecological engineering in wetlands. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 537-58. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1450 Morrison, M., A. Newell, and R. Hjort. 1991. *Data user's guide to the United States Environmental Protection Agency's long-term monitoring project: Quality assurance plan and data dictionary*. (EPA/600/3-91/072, PB92-239573). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1460 Mouat, D. A., G. G. Mahin, and J. M. Lancaster. 1993. Remote sensing techniques in the analysis of change detection. *Geocarto International* 8 (2):39-50.
- 1470 Mouat, D., C. A. Fox, and M. R. Rose. 1992. Ecological indicator strategy for monitoring arid ecosystems. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 717-38. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1480 Mulik, J., J. Varns, P. Koutrakis, M. Wolfson, and D. Williams. 1992. *Passive sampling device as a simple tool for assessing ecological change: An extended monitoring study in ambient air*. (EPA/600/A-92/242, PB93-120988). Research Triangle Park, NC: U.S. Environmental Protection Agency, Atmospheric Research and Exposure Assessment Laboratory.
- 1490 Murdoch, P. S., and J. L. Stoddard. 1993. Chemical characteristics and temporal trends in eight streams of the Catskill Mountains, New York. *Water, Air, and Soil Pollution* 67 (3-4):367-95.

N

- 1500 National Research Council Water Science and Technology Board. 1992. *Review of EPA's Environmental Monitoring and Assessment Program (EMAP): Interim report*. (PB93-146348). Washington, DC: U.S. Environmental Protection Agency.
- 1510 Neher, D. 1992. Ecological sustainability in agricultural systems. *Journal of Sustainable Agriculture* 2:51-61.
- 1520 Neilson, R. P., and G. A. King. 1992. Continental scale biome responses to climatic change. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1015-40. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1530 Newell, A. D., and M. L. Morrison. 1993. Use of overlap studies to evaluate method changes in water chemistry protocols. *Water, Air, and Soil Pollution* 67 (3-4):433-56.
- 1540 Newell, A. D. 1993. Inter-regional comparison of patterns and trends in surface water acidification across the United States. *Water, Air, and Soil Pollution* 67 (3-4):257-80.

- 1550 Newell, A. D., D. J. Blick, and R. C. Hjort. 1993. Testing for trends when there are changes in methods. *Water, Air, and Soil Pollution* 67 (3-4):457-68.
- 1560 Newton, B. J. 1992. The U.S. Clean Water Act: Programmatic needs and experiences. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1211-17. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1570 Nielson, R. P., and G. A. King. 1992. Continental scale biome responses to climate change. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1015-40. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1580 Nip, M. I., J. B. Latour, F. Klijn, P. K. Koster, C. L. G. Groen, H. A. Udo de Haes, and H. A. M. De Kruijf. 1992. Environmental quality assessment of ecodistricts: A comprehensive method for environmental policy. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 865-81. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1590 Norton, D. J. 1990. *Landscape characterization FY 1990 implementation plan*. (EPA/600/X-90/001). Warrenton, VA: U.S. Environmental Protection Agency, Environmental Photographic Interpretation Center.
- 1600 Norton, D. J., D. M. Muchoney, and E. T. Slonecker. 1990. Ecological monitoring using remote sensing-supported GIS. In: *Technical Papers, 56th Annual Meeting of the American Society of Photogrammetry and Remote Sensing*. IV: p. 306-15.
- 1610 Norton, D. J., D. M. Muchoney, E. T. Slonecker, and J. H. Montanari. 1989. *Landscape characterization for ecological monitoring*. (TS-PIC-89301). Warrenton, VA: U.S. Environmental Protection Agency, Environmental Photographic Interpretation Center.
- 1620 Norton, D. J., and E. T. Slonecker. 1990. EMAP landscape characterization and common exposure settings. Abstract in: *Society for Environmental Toxicology and Chemistry (SETAC) Annual Meeting*.
- 1630 ---. 1991. The Environmental Monitoring and Assessment Program's landscape characterization database: New opportunities in spatial analysis. In: *GIS/LIS '90 Proceedings*. Vol. 2: p. 682-90. Bethesda, MD: American Society for Photogrammetry and Remote Sensing, American Congress on Surveying and Mapping.
- 1640 ---. 1991. Landscape characterization: The ecological geography of EMAP. *GeoInfoSystems* 1 (1):32-42.

O

- 1650 O'Connor, R. J. 1992. The analysis of geographic scale and population processes in bird population monitoring data. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 929-60. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1660 O'Connor, R. J., and R. B. Boone. 1992. A retrospective study of agricultural bird populations in North America. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1165-84. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1670 Olsen, A. R., and M. Ivanovich. 1993. *EMAP Monitoring Strategy and Sampling Design*. [Videocassette]. (EPA/620/V-93/001, PB94-780111, ERL-COR-800V). Corvallis, OR: US Environmental Protection Agency, Environmental Research Laboratory.
- 1680 O'Neill, R. V., C. T. Hunsaker, and D. A. Levine. 1992. Monitoring challenges and innovative ideas. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1443-60. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1690 Overpeck, J. 1992. The past as a key indicator for assessing future climate-induced ecological change. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1089-96. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1700 Overton, J., T. C. Young, and W. S. Overton. 1993. Using "found" data to augment a probability sample: Procedure and case study. *Environmental Monitoring and Assessment* 26 (2/3):65-83.
- 1710 Overton, W. S. 1993. Probability sampling and population inference in monitoring programs. In: *Environmental Modeling with GIS*, M. F. Goodchild, B. O. Parks, and L. T. Steyaert, eds. p. 470-80. (EPA/600/A-92/108, PB92-180272). New York, NY: Oxford University Press.
- 1720 Overton, W. S., and S. V. Stehman. 1993. Properties of designs for sampling continuous spatial resources from a triangular grid. *Communications in Statistics, Part A: Theory & Methods* 22 (9):2641-60.
- 1730 Overton, W. S., D. White, and D. L. Stevens. 1990. *Design report for EMAP, Environmental Monitoring and Assessment Program*. (EPA/600/3-91/053, PB92-

- 103449). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1740 Owecke, J. 1990. *Report on the northeast aerial photographic acquisition, Spring 1990.* (TS-PIC-90397). Warrenton, VA: Environmental Photographic Interpretation Center.
- P**
- 1750 Palmer, C. J., K. H. Riitters, T. Strickland, D. L. Cassell, and G. E. Byers. 1992. *Monitoring and research strategy for forests--Environmental Monitoring and Assessment Program, vol. 1.* (EPA/600/4-91/012, PB92-146208). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 1760 Paul, J. F., A. F. Holland, K. J. Scott, and D. A. Flemer. 1989. Ecological Status and Trends Program: EPA's approach to monitoring condition of the Nation's ecosystems. *Oceans '89, An International Conference Addressing Methods for Understanding the Global Ocean, Vol 2 (Ocean Pollution).* p. 579-82. (EPA/600/D-90/221, PB91-136986). Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE).
- 1770 Paul, J. F., A. F. Holland, J. K. Summers, S. C. Schimmel, and K. J. Scott. 1991. EPA's Environmental Monitoring and Assessment Program: An ecological status and trends program. In: *Canadian Technical Report of Fisheries and Aquatic Sciences No. 1774.* Vol. 1: p. 80-98. (EPA/600/D-91/250, PB92-121169).
- 1780 Paul, J. F., A. F. Holland, S. C. Schimmel, J. K. Summers, and K. J. Scott. 1990. *U.S. Environmental Protection Agency's Environmental Monitoring and Assessment Program: An ecological status and trends program.* (EPA/600/J-90/548, PB92-121292). Narragansett, RI: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1790 Paul, J. F., K. J. Scott, A. F. Holland, S. B. Weisberg, and J. K. Summers. 1992. *Estuarine component of the U.S. EPA's Environmental Monitoring and Assessment Program.* (EPA/600/J-93/136, PB93-185833). Narragansett, RI: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1800 Paulsen, S. G., D. P. Larsen, P. R. Kaufmann, T. R. Whittier, J. R. Baker, D. V. Peck, J. McGue, R. M. Hughes, D. McMullen, D. L. Stevens, J. L. Stoddard, J. Lazorchak, W. Kinney, A. R. Selle, R. Hjort, W. S. Overton, J. Pollard, D. Heggem, G. Collins, M. Morrison, C. B. Johnson, S. Thiele, N. Tallent-Halsell, K. Peres, S. J. Christie, and J. Mello. 1991. *EMAP-Surface Waters monitoring and research strategy--fiscal year 1991.* (EPA/600/3-91/022, PB91-168518). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 1810 Pegov, S. 1992. Ecological forecasting: "What for?". In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 67-84. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1820 Peterson, R. W. 1992. Indicators of the causes of ecological impacts or what's causing the global environmental crisis. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 89-100. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1830 Plafkin, J. L., M. T. Barbour, K. D. Porter, S. K. Gross, and R. M. Hughes. 1989. *Rapid bioassessment protocols for use in streams and rivers: Benthic macroinvertebrates and fish.* (EPA/444/4-89/001). Washington, DC: U.S. Environmental Protection Agency, Office of Water.
- 1840 Pollard, J. E., K. M. Peres, and S. G. Paulsen. 1991. *Environmental Monitoring and Assessment Program: Surface Waters implementation plan--northeast pilot lake survey, Summer 1991.* (EPA/600/4-91/019, PB92-139948). Las Vegas, NV: U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory.
- 1850 Potter, B. G., and L. E. Jackson. 1993. *Environmental Monitoring and Assessment Program project descriptions (FY93 Edition).* (EPA/620/R-93/009, PB94-114915). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development, Office of Modeling, Monitoring Systems and Quality Assurance.
- 1860 Preston, E., and C. A. Ribic. 1992. *EMAP and other tools for measuring biodiversity, habitat conditions, and environmental trends.* (EPA/600/A-92/205, PB93-106748). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- R**
- 1870 Rapport, D. J. 1992. Evolution of indicators of ecosystem health. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 121-34. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1880 Reagan, D. P., and C. L. Fordham. 1992. An approach for selecting and using indicator species to monitor ecological effects resulting from chemical

- changes in soil and water. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1319-39. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1890 Reams, M. A., S. R. Coffee, A. R. Machen, and K. J. Poche. 1992. Use of environmental indicators in evaluating effectiveness of state environmental regulatory programs. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1245-73. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1900 Regier, H. A. 1992. Indicators of ecosystem integrity. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 183-200. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 1910 Riitters, K. H. 1990. A comparison of chronologies from tree rings. *Canadian Journal of Forest Research* 20 (1):76-83.
- 1920 Riitters, K. H., and J. E. Barnard. 1990. Criteria for evaluating indicators of forest health. In: *Proceedings of the Conference on Global Natural Resource Monitoring and Assessments: Preparing for the 21st Century*. G. Lund, ed. International Union of Forestry Research Organizations and the United Nations Food and Agricultural Organization.
- 1930 Riitters, K. H., B. Law, R. Kucera, A. Gallant, R. DeVelice, and C. Palmer. 1990. Section 6, Indicator strategy for forests and Appendix D, Indicator fact sheets for forests. In: *Ecological Indicators*, C. Hunsaker, and D. E. Carpenter, eds. (EPA/600/3-90/060, PB91-141796). Washington, DC: U.S. Environmental Protection Agency, Atmospheric Research and Exposure Assessment Laboratory.
- 1940 Riitters, K. H., B. E. Law, R. C. Kucera, A. L. Gallant, R. L. DeVelice, and C. J. Palmer. 1992. A selection of forest condition indicators for monitoring. *Environmental Monitoring and Assessment* 20 (1):21-23.
- 1950 Riitters, K. H., L. F. Ohmann, and D. F. Grigal. 1991. Woody tissue analysis using an element ratio technique (DRIS). *Canadian Journal of Forest Research* 21 (8):1270-77.
- 1960 Riitters, K., M. Papp, D. Cassell, and J. Hazard. 1991. *Forest Health Monitoring plot design and logistics study*. (EPA/600/3-91/051, PB92-118447). Research Triangle Park, NC: U.S. Environmental Protection Agency, Atmospheric Research and Exposure Assessment Laboratory.
- 1970 Roose, D. V. 1990. *EMAP ten hexagon pilot project data dictionary*. (TS-PIC-90383). Warrenton, VA: U.S. Environmental Protection Agency, Environmental Photographic Interpretation Center.
- 1980 Saint, C. G., P. Kellar, and A. Beach. 1991. *EMAP monitor. January 1991*. (EPA/600/M-90/022, PB91-191320). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 1990 Schaefer, D. A., and C. T. Driscoll. 1993. Identifying sources of snowmelt acidification with a watershed mixing mode. *Water, Air, and Soil Pollution* 67 (3-4):345-65.
- 2000 Schimmel, S. C., and C. J. Strobel. 1991. *Environmental Monitoring and Assessment Program: 1990 Demonstration project field activities report*. (EPA/600/9-90/028). Washington, DC: U.S. Environmental Protection Agency, Office of Research and Development.
- 2010 Schneider, E. D. 1992. Monitoring for ecological integrity: The state of the art. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1403-19. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2020 Schreuder, H. T., and R. L. Czaplewski. Long-term strategy for the statistical design of a forest health monitoring system. *Environmental Monitoring and Assessment* 27 (2):81-94.
- 2030 Schubert, R. 1992. Possibilities and limitations in bioindication on landscape monitoring scales. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 817-27. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2040 Schumacher, B. A., K. C. Shines, J. V. Burton, and M. L. Papp. 1990. Comparison of three methods for soil homogenization. *Soil Science Society of America Journal* 54 (4):1187-90.
- 2050 Seager, J., I. Milne, and M. Crane. 1992. The application of in situ bioassays as ecological indicators for assessing river quality. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 243-58. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2060 Selle, A. R., D. P. Larsen, and S. G. Paulsen. 1991. GIS procedure to create a national lakes frame for environmental monitoring. In: *Proceedings of the*

S

- ESRI User Conference.* (EPA/600/D-91/178, PB91-226464). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 2070 Sherman, K. 1992. Monitoring and assessment of large marine ecosystems: A global and regional perspective. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1041-74. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2080 Short, H. L. 1992. Use of the habitat linear appraisal system to inventory and monitor the structure of habitats. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 961-74. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2090 Simmons, G. R. 1992. Consideration of ecological factors in resource management planning for Bureau of Land Management administered lands. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1139-44. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2100 Sisula, H. 1992. The need for international cooperation within intergrated monitoring frameworks. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1507-14. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2110 Squires, L. 1992. *Environmental Monitoring and Assessment Program: Gulf coast salt marsh pilot study.* (EPA/600/R-92/216, PB93-122398). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 2120 ---. 1992. Research strategy to develop ecolgical indicators of wetland condition. Presented at the: *Annual Meeting of the Society of Wetland Scientists (13th)*. (EPA/600/A-93/021, PB93-156073). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 2130 Squires, L., and A. G. Van Der Valk. 1992. Water-depth tolerances of the dominant emergent macrophytes of the Delta Marsh, Manitoba. *Canadian Journal of Botany* 70:1860-67.
- 2140 Stehman, S. V. 1992. Comparison of systematic and random sampling for estimating the accuracy of maps generated from remotely sensed data. (EPA/600/J-93/147, PB93-191443). *Photogrammetric Engineering & Remote Sensing* 58 (9):1343-50.
- 2150 Steubing, L. 1992. Air pollution effects on healthland. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 841-64. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2160 Stoddard, J. L. 1991. Long-term changes in watershed retention of nitrogen: Its causes and aquatic consequences. *Abstracts of Papers of the American Chemical Society* 201 (Apr):70.
- 2170 ---. 1991. Trends in Catskill stream water quality: Evidence from historical data. *Water Resources Research* 27 (11):2855-64.
- 2180 Stoddard, J. L., and J. H. Kellogg. 1993. Trends and patterns in lake acidification in the State of Vermont: Evidence from the long-term monitoring project. *Water, Air, and Soil Pollution* 67 (3-4):301-17.
- 2190 Stolte, K., R. Doty, K. Tonnesen, and R. Fisher. 1993. Lessons from seven case studies. Section 8 in: *Lichens as Bioindicators of Air Quality*, L. S. Huckaby, ed. p. 116-27. (General Technical Report RM-224). Fort Collins, CO: U.S. Department of Agriculture-Forest Service, Rocky Mountain Forest and Range Experiment Station.
- 2200 Stolte, K., D. Mangis, and R. Doty. 1993. Introduction. Section 1 in: *Lichens as Bioindicators of Air Quality*, L. S. Huckaby, ed. p. 1-5. (General Technical Report RM-224). Fort Collins, CO: U.S. Department of Agriculture-Forest Service, Rocky Mountain Forest and Range Experiment Station.
- 2210 Stolte, K., S. Pittam, and R. Rosentreter. 1993. Site characteriztition. Section 3 in: *Lichens as Bioindicators of Air Quality*, L. S. Huckaby, ed. p. 16-40. (General Technical Report RM-224). Fort Collins, CO: U.S. Department of Agriculture-Forest Service, Rocky Mountain Forest and Range Experiment Station.
- 2220 Stolte, K. W., and D. Mangis. 1992. Identification and use of plant species as ecological indicators of air pollution stress in national park units. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 373-92. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2230 Summers, J. K., and V. D. Engle. 1993. Evaluation of sampling strategies to characterize dissolved oxygen condition in northern Gulf of Mexico estuaries. *Environmental Monitoring and Assessment* 24 (3):219-229.
- 2240 Summers, J. K., J. M. Macauley, and P. T. Heitmuller. 1990. *Implementation plan for monitoring the estuarine waters of the Louisianian Province - 1991 Demonstration.* (EPA/600/5-91/288). Gulf Breeze, FL: U.S. Environmental Protection Agency, Environmental Research Laboratory.

- 2250 Summers, J. K., J. M. Macauley, V. D. Engle, G. T. Brooks, P. T. Heitmuller, and A. M. Adams. 1993. *Louisianian Province demonstration report: EMAP-Estuaries - 1991*. (EPA/600/R-94/001). Gulf Breeze, FL: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratory.
- 2260 Summers, J. K., J. M. Macauley, P. T. Heitmuller, V. D. Engle, A. M. Adams, and G. T. Brooks. 1993. *Statistical summary: EMAP-Estuaries Louisianian Province - 1991*. (EPA/620/R-93/007, PB94-117488). Gulf Breeze, FL: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratory.
- 2270 Summers, J. K., H. T. Wilson, and J. Y. Kou. 1992. A method for quantifying the prediction uncertainties associated with water-quality models. *Ecological Modelling* 65 (3-4):161-76.
- 2280 Summers, K., J. Macauley, N. Rubinstein, R. Latimer, and J. Paul. 1993. An overview of estuarine monitoring in the Environmental Monitoring and Assessment Program: 1990-1992. In: *Sixth International Symposium: The Interactions Between Sediments and Water*. Santa Barbara, CA: University of California at Santa Barbara.
- 2290 Sumner, M. E., and N. W. Barbour. 1992. The Diagnosis and Recommendation Integrated System (DRIS) as an ecological indicator for agricultural and forest systems. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 663-74. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2300 Svanberg, O. F. 1992. Toxic effects monitoring in Baltic Sea coastal areas. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 413-24. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2310 Swenson, E. M., J. M. Lee, and R. E. Turner. 1992. *Quality assurance project plan: 1991 EMAP Wetlands southeastern pilot study*. (EPA/620/R-92/002, PB93-141067). Baton Rouge, LA: Louisiana State University.
- T**
- 2320 Terrell, C. R. 1992. The Soil Conservation Service's new water quality indicators guide. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 659-61. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2330 Thornton, K. W., D. E. Hyatt, and C. B. Chapman., eds. 1993. *Environmental Monitoring and Assessment Program guide*. (EPA/620/R-93/012). Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring and Assessment Program.
- 2340 Tidwell, R. L., and R. Kucera. 1992. Field logistics overview. In: *Forest Health Monitoring 1992 Activities Plan*, S. A. Alexander, and J. E. Barnard, eds. (EPA/620/R-93/002, PB94-114717). Washington, DC: U.S. Environmental Protection Agency.
- 2350 Turgeon, D. D., S. B. Bricker, and T. P. O'Conner. 1992. National Status and Trends Program: Chemical and biological monitoring of U.S. coastal waters. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 425-57. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2360 Turk, J. T., D. H. Campbell, and N. E. Spahr. 1993. Use of chemistry and stable sulfur isotopes to determine sources of trends in sulfate of Colorado lakes. *Water, Air, and Soil Pollution* 67 (3-4):415-32.
- U**
- 2370 Ulrich, B., and M. Bredemeier. 1992. Ecological indicators of temperate forest ecosystem condition. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 345-60. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2380 Urquhart, N. S., W. S. Overton, and D. S. Birkes. 1993. Comparing sampling designs for monitoring ecological status and trends: Impact of temporal patterns. In: *Statistics for the Environment*, V. Barnett, and K. F. Turkman, eds. p. 71-85. (EPA/600/A-93/196, PB93-222289). Sussex, England: John Wiley & Sons, Ltd.
- 2390 U.S. Department of Agriculture-Forest Service. 1993. *Northeastern area forest health report*. (NA-TP-03-93). U.S. Department of Agriculture-Forest Service.
- 2400 U.S. Environmental Protection Agency. 1991. Pesticides in Natural Systems: "How Can Their Effects Be Monitored". (EPA/910/9-91/011, PB91-197053). Seattle, WA: U.S. Environmental Protection Agency, Region X.
- V**
- 2410 Van Der Valk, A. G., and L. Squires. 1992. Indicators of flooding derived from aerial photography in northern prairie wetlands. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J.

- McDonald, eds. p. 593-602. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2420 Van Remortel, R. D., H. W. Reed, C. J. Palmer, B. L. Conkling, and D. L. Cassell. 1993. Exploratory data analysis for the development of forest soil health indices. In: *Annual Meeting of the Soil Science Society of America*. Madison, WI: Agronomy Abstracts.
- 2430 Van Remortel, R. D., and D. A. Shields. 1993. Comparison of clod and core methods for determination of soil bulk density. *Community Soil Science Plant Anal* 24 (17/18):2517-25.
- 2440 Varanasi, U., J. E. Stein, L. L. Johnson, T. K. Collier, E. Casillas, and M. Myers. 1992. Evaluation of bioindicators of contaminant exposure and effects in coastal ecosystems. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 461-98. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2450 Walker, J., and K. B. Jones. 1992. The U.S. Environmental Monitoring and Assessment Program (EMAP): Towards the use of indicators to assess ecological sustainable development at regional and continental scales. In: *Environmental Indicators for Sustainable Agriculture*. A. Hamblin, ed. p. 44-49. Canberra, ACT, Australia: Goanna Print.
- 2460 Ward, R. C. 1992. Indicator selection: A key element in monitoring system design. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 147-57. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2470 Weatherley, N. S., and S. J. Ormerod. 1992. The utility of biological indicators of stream acidity in Wales. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1341-54. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2480 Webster, K. E., P. L. Brezonik, and B. J. Holdhusen. 1993. Temporal trends in low alkalinity lakes of the upper midwest. *Water, Air, and Soil Pollution* 67 (3-4):397-414.
- 2490 Weisberg, S. B., J. B. Frithsen, A. F. Holland, J. F. Paul, K. J. Scott, J. K. Summers, H. T. Wilson, R. Valente, D. G. Heimbuch, J. Gerritsen, S. C. Schimmel, and R. W. Latimer. 1993. *Virginian Province demonstration report EMAP-Estuaries: 1990*. (EPA/620/R-93/006, PB93-229854). Narragansett, RI: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 2500 Wheeler, D. P. 1992. Earth Day plus 20: Rediscovering ecology. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 101-08. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2510 White, D., A. J. Kimerling, and W. S. Overton. 1992. Cartographic and geometric components of a global sampling design for environmental monitoring. *Cartography and Geographic Information Systems* 19 (1):5-22.
- 2520 Whittier, T. R. 1990. Environmental Monitoring and Assessment Program (EMAP) overview. In: *Proceedings of the Water Quality Data Assessment Workshop*. San Antonio, TX: U.S. Environmental Protection Agency, Region 6.
- 2530 ---. 1993. *Sampling and assessment issues in using fish as indicators of ecological condition in lakes: A workshop report*. (EPA/620/R-93/005, PB93-186278). Corvallis, OR: U.S. Environmental Protection Agency, Environmental Research Laboratory.
- 2540 Whittier, T. R., and S. G. Paulsen. 1992. The surface waters component of the Environmental Monitoring and Assessment Program (EMAP): An overview. (EPA/600/J-92/397, PB93-121267). *Journal of Aquatic Ecosystem Health* 1:119-26.
- 2550 Whittier, T. R., and E. T. Rankin. 1992. Regional patterns in three biological indicators of stream condition in Ohio. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 975-95. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2560 Young, T. C., and J. Ford. 1990. Site selection procedures for temporally integrated monitoring of ecosystems (TIME). In: *Proceedings of the International Symposium on the Design of Water Quality Information Systems*. R. C. Ward, J. C. Loftis, G. B. McBride, eds. Colorado Water Resources Research Institute Information Series No. 61. p. 425-35.

W

- 2450 Walker, J., and K. B. Jones. 1992. The U.S. Environmental Monitoring and Assessment Program (EMAP): Towards the use of indicators to assess ecological sustainable development at regional and continental scales. In: *Environmental Indicators for Sustainable Agriculture*. A. Hamblin, ed. p. 44-49. Canberra, ACT, Australia: Goanna Print.
- 2460 Ward, R. C. 1992. Indicator selection: A key element in monitoring system design. In: *Ecological Indicators*, Vol. 1, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 147-57. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2470 Weatherley, N. S., and S. J. Ormerod. 1992. The utility of biological indicators of stream acidity in Wales. In: *Ecological Indicators*, Vol. 2, D. H. McKenzie, D. E. Hyatt, and V. J. McDonald, eds. p. 1341-54. (EPA/600/9-91/039, PB92-114131). New York, NY: Elsevier Applied Science.
- 2480 Webster, K. E., P. L. Brezonik, and B. J. Holdhusen. 1993. Temporal trends in low alkalinity lakes of the upper midwest. *Water, Air, and Soil Pollution* 67 (3-4):397-414.
- 2490 Weisberg, S. B., J. B. Frithsen, A. F. Holland, J. F. Paul, K. J. Scott, J. K. Summers, H. T. Wilson, R.

Y

- 2560 Young, T. C., and J. Ford. 1990. Site selection procedures for temporally integrated monitoring of ecosystems (TIME). In: *Proceedings of the International Symposium on the Design of Water Quality Information Systems*. R. C. Ward, J. C. Loftis, G. B. McBride, eds. Colorado Water Resources Research Institute Information Series No. 61. p. 425-35.

Index (Authors)

A

Adams, AM 1270, 2250, 2260
 Adamus, PR 10
 Alexander, SA 20, 30, 40
 Amundson, GH 1100
 Arndt, U 50, 60

B

Baker, JP 1090, 1210
 Baker, JR 70, 880, 1050, 1800
 Balogh, ME 80
 Barbour, MT 1830
 Barbour, NW 2290
 Barnard, JE 30, 40, 1920
 Barnett, C 630
 Barnthouse, LW 910
 Barrows, EH 90
 Bascietto, JJ 100
 Beach, A 1020, 1980
 Beardsley, DP 110
 Berstein, B 120
 Bezuneh, T 130
 Birkes, DS 2380
 Blick, DJ 1550
 Block, DR 210, 220
 Boone, RB 1660
 Boyle, TP 760
 Breckenridge, RP 140, 1050
 Bredemeier, M 2370
 Bretthauer, EW 150
 Brewer, GD 160
 Brezonik, PL 2480
 Bricker, SB 2350
 Bromberg, SM 170
 Bromenshenk, J 180
 Brooks, GT 2250, 2260
 Brussard, PF 320
 Burkman, W 630
 Burton, JV 2040
 Byers, GE 1750

C

Campbell, CL 710, 720, 1410
 Campbell, DH 2360
 Carlson, JA 40
 Carpenter, DE 890, 900

Carpenter, SR 600
 Carr, DB 190
 Casillas, E 2440
 Cassell, DL 1750, 1960, 2420
 Chapman, CB 2330
 Charles, DF 1090
 Christie, SJ 1180, 1800
 Coates, JF 200
 Coffee, SR 1890
 Collier, TK 2440
 Collins, GB 880, 1800
 Congalton, RG 1260
 Conkling, BL 2420
 Cooter, EJ 210, 220
 Cordy, CB 230, 240
 Cormier, SM 250
 Costa, JE 260
 Costanza, R 270
 Couch, JA 280
 Coughenour, M 290
 Cowling, EB 300
 Crane, M 2050
 Cumming, BF 340
 Czaplewski, RL 2020

D

Daly, C 310
 Davis, RB 1000
 De Kruif, HAM 1580
 Debinski, DM 320
 DeVlice, RL 1930, 1940
 Dionne, M 330
 Dixit, SS 340, 880
 Dolan, D 730
 Domotor, DK 680
 Doty, R 2190, 2200
 Driscoll, CT 350, 1990

E

Earle, SA 360
 Elvidge, C 1050
 Engle, VD 1270, 2230, 2250, 2260
 Environmental Monitoring and
 Assessment Program 370, 380,
 390, 400, 410, 420, 430, 440, 450,
 460, 470
 Erhardt, W 480

Ernst, TL 490, 1200, 1300

F

Fabrizio, M C 580
 Fenstermaker, LD 1260
 Finkner, AL 710, 720
 Fisher, R 2190
 Flemer, DA 1760
 Flora, DG 680
 Folmar, L 500, 1350
 Ford, J 510, 520, 530, 2560
 Fordham, CL 1880
 Foresta, R 540
 Fournie, JW 280, 1350
 Fox, CA 1050, 1470
 Franson, SE 550, 560, 570
 Frederick, R 1130
 French, DR 1100
 Frithsen, JB 580, 590, 2490
 Frost, TM 600

G

Gallant, AL 1930, 1940
 Gardner, RH 910
 Garner, JHB 610
 Gebhardt, H 480
 Gentile, JH 620
 Gerritsen, J 580, 2490
 Giblin, AE 260
 Gillespie, JR 630
 Goldberg, E 640
 Goldman, LR 650
 Gomez, M 650
 Goodno, B 730
 Gosz, J 660
 Graham, RL 910
 Greenfield, S 650
 Greenwalt, LA 670
 Griffith, DA 230
 Grigal, DF 1100, 1950
 Groen, CLG 1580
 Gross, SK 1830
 Gutenson, O 940

H

Haines, TA 1000

Haire, MS 680
 Hall, L 650
 Hammond, A 690
 Hayes, CM 720
 Hazard, JW 700, 1960
 Heck, W.W 710, 720, 1410
 Hedin, S 730, 880
 Heggen, D 1800
 Heimbuch, DG 2490
 Heiskary, SA 850
 Heitmuller, PT 1270, 2240, 2250,
 2260
 Hess, GR 710, 720, 1410
 Higley, KA 100
 Hinckley, D 740
 Hirvonen, H 750
 Hjort, RC 1450, 1550, 1800
 Hoefs, NJ 760
 Holdhusen, BJ 2480
 Holland, AF 580, 590, 770, 780,
 1760, 1770, 1780, 1790, 2490
 Holland, MM 790
 Hopker, K 480
 Howes, BL 260
 Hughes, RM 800, 810, 820, 830,
 840, 850, 860, 870, 880, 1800,
 1830
 Hulka, BS 650
 Hunsaker, CT 790, 890, 900, 910,
 920, 1680
 Hyatt, DE 610, 930, 940, 1330,
 2330

I

Inouye, D 790
 Ivanovich, M 1670

J

Jackson, BL 920
 Jackson, LE 1230, 1850
 Jager, HI 950
 Janatos, A 790
 Jenkins, KD 960
 Jensen, JR 1260
 Johnson, CB 1800
 Johnson, LL 2440
 Jones, KB 970, 980, 2450
 Jorgensen, SE 990

K

Kahl, JS 1000
 Karr, JR 330
 Kaufmann, PR 880, 1800
 Kay, JJ 1010
 Kaye, WE 650
 Keitel, A 480
 Kellar, P 1020, 1980
 Kellogg, JH 2180
 Kelly, JM 1030
 Kent, DM 1030

Kepner, WG 140, 1040, 1050
 Kibreab, T 130
 Kimerling, AJ 2510
 King, GA 1520, 1570
 Kingston, JC 340
 Kinney, WL 880, 1800
 Kisner, D 1060
 Klemm, DJ 1070
 Klijn, F 1580
 Klopatek, JM 1080, 1090
 Knapp, CM 1090
 Koster, PK 1580
 Kou, JY 2270
 Kourakis, P 1480
 Kratz, TK 600
 Kreimes, K 480
 Kromroy, K 1100
 Kucera, RC 1110, 1120, 1930,
 1940, 2340
 Kutz, FW 1130, 1140

L

LaBau, VJ 1150
 Lancaster, JM 1430, 1460
 Landers, DH 510
 Landers, PB 1160
 Larsen, DP 880, 1170, 1180, 1800,
 2060
 Latimer, RW 2280, 2490
 Latour, JB 1580
 Law, B 700, 1930, 1940
 Lawrence, DM 790
 Lawrence, J 1190
 Lazorchak, JM 880, 1070, 1190,
 1800
 LeDuc, SK 210, 220
 Lee, JM 2310
 Leibowitz, NC 490, 1200, 1210
 Lesser, VM 1220
 Levine, DA 920, 1680
 Linthurst, RA 1130, 1140, 1230,
 1380, 1390
 Longest II, HL 1240
 Ludwig, J 1250
 Lunetta, RS 1260
 Lunetta, R 80
 Lybarger, JA 650

M

Macauley, JM 1270, 2240, 2250,
 2260, 2280
 Mace, TM 1280
 Machen, AR 1890
 Mahin, GG 1460
 Mangis, D 2200, 2220
 Manly, BFJ 1310
 Marmorek, DR 1090
 Marshall, D 660
 Martin, BE 1110
 Mata, N 1290
 Matthews, WJ 850

Mayer, T 480
 McAllister, L 1300
 McDonald, LL 1310
 McDonald, VJ 1330
 McGue, J 1800
 McGwire, KC 1260
 McKee, KL 1340
 McKenzie, DH 650, 1320, 1330
 McMullen, D 880, 1800
 McRae, G 730
 Mello, J 1800
 Mendelssohn, IA 1340
 Menzer, RE 1350
 Messer, JJ 890, 1360, 1370, 1380,
 1390, 1400
 Meyer, JR 710, 720, 1410
 Miller-Weeks, M 630
 Milne, BT 1420
 Milne, I 2050
 Minor, TB 1430
 Mitsch, WJ 1440
 Montanari, JH 1610
 Morrin, DJ 790
 Morrison, ML 1450, 1800, 1530
 Moser, TJ 710, 1410
 Mouat, DA 140, 1430, 1460, 1470
 Muchoney, DM 1060, 1600, 1610
 Mulik, J 1480
 Munster, MJ 720
 Murdoch, PS 1490
 Murmann-KL 480
 Murphy, RS 650
 Myers, M 2440

N

National Research Council Water
 Science and Technology Board
 1500
 Neher, D 720, 1510
 Neilson, RP 1520
 Newell, AD 1450, 1530, 1540, 1550
 Newton, BJ 1560
 Nielson, RP 1570
 Nip, MI 1580
 Norton, DJ 1590, 1600, 1610, 1620,
 1630, 1640
 Norton, SA 1000
 Noss, RF 860, 870

O

O'Conner, TP 2350
 O'Connor, RJ 1650, 1660
 Ohmann, LF 1950
 Olsen, AR 190, 1670
 Olsen, M F 1100
 O'Neill, RV 910, 920, 1680
 Ormerod, SJ 2470
 Overpeck, J 1690
 Overton, J 1700

Overton, WS 950, 1380, 1700,
1710, 1720, 1730, 1800, 2380,
2510

Owecke, J 1740

P

Palmer, CJ 1120, 1190, 1750, 1930,
1940, 2420
Panday, NN 680
Papp, ML 1960, 2040
Parmenter, RR 660
Paul, JF 780, 1760, 1770, 1780,
1790, , 1720, 1730, 2280
Paulsen, SG 880, 1170, 1800, 1840,
2060, 2540
Peck, DV 880, 1800
Peck, SL 710, 720, 1410
Pegov, S 1810
Pelczarski, S 1060
Peres, KM 1800, 1840
Peterson, RW 1820
Pilli, A 730
Piltz, FM 160
Pittam, S 2210
Plafkin, JL 1830
Poche, KJ 1890
Pollard, JE 880, 1800, 1840
Porter, KD 1830
Potter, BG 1850
Powers, CF 530
Preston, E 1860
Pulliam, HR 790

R

Racine, RN 250
Rankin, ET 2550
Rapport, DJ 1870
Rawlings, JO 710, 720, 1410
Reagan, DP 1880
Reams, MA 1890
Reed, HW 2420
Regier, HA 1900
Reimold, RJ 1030
Ribic, CA 1860
Riitters, KH 1750, 1910, 1920,
1930, 1940, 1950, 1960
Riordan, C 1130, 1390
Robertson, W 790
Roose, DV 1200, 1970
Roose, DV 1970
Rosentreter, R 2210
Rubinstein, N 2280

S

Saint, CG 1980
Sanders, BM 960
Saul, G 580

Schaefer, DA 1990
Schimmel, SC 1770, 1780, 2000,
2490
Schneider, ED 1010, 2010
Schreuder, HT 2020
Schubert, R 2030
Schumacher, BA 2040
Scott, KJ 780, 1760, 1770, 1780,
1790, 2490
Seager, J 2050
Selle, AR 1170, 1800, 2060
Sherman, K 2070
Shields, DA 2430
Shines, KC 2040
Short, HL 2080
Simmons, GR 2090
Sisula, H 2100
Slimak, MW 620, 1130
Slonecker, ET 1600, 1610, 1620,
1630, 1640
Smith, CN 720
Smith, ER 1120
Smol, JP 340
Spahr, NE 2360
Squires, L 1210, 2110, 2120, 2130,
2410
Stehman, SV 1200, 1720, 2140
Stein, JE 2440
Steubing, L 2150
Stevens, DL 1170, 1730, 1800
Stoddard, JL 520, 530, 1490, 1800,
2160, 2160, 2170
Stolte, KW 2190, 2200, 2210, 2220
Stout, KK 1060
Strickland, T 1750
Strobel, CJ 2000
Suk, P 1020
Sullivan, R 1060
Summers, JK 780, 1270, 1770,
1780, 1790, 2230, 2240, 2250,
2260, 2270, 2280, 2490
Summer, ME 2290
Suter, GW 910
Sutton, DW 70
Svanberg, OF 2300
Swenson, EM 2310

T

Tallent-Halsell, N 1800
Tammi, CE 1030
Terrell, CR 2320
Thiele, SA 880, 1800
Thornton, KW 1090, 1230, 2330
Tidwell, RL 2340
Tierney, G 740
Timmins, SP 920
Tinney, LR 1260
Tongway, DJ 1250

Tonnessen, K 2190
Tooley, MB 720
Truppi, L 210, 220
Turgeon, DD 2350
Turk, JT 2360
Turner, RE 2310

U

Udo de Haes, HA 1580
Ulrich, B 2370
Umlauff-Zimmermann, R 480
Urquhart, NS 1200, 2380
U.S. Department of Agriculture-
Forest Service 2390
U.S. Environmental Protection
Agency 2400

V

Valente, R 2490
Valiela, I 260
Vallero, DA 610
Van Der Valk, AG 2130, 2410
Van Dreason, R 350
Van Remortel, RD 2420, 2430
Varanasi, U 2440
Varns, J 1480

W

Wade, TG 1430
Walker, J 2450
Ward, RC 2460
Weatherley, NS 2470
Webster, KE 2480
Weisberg, SB 1790, 2490
Wellington, DG 650
Wheeler, DP 2500
White, D 190, 1730, 2510
Whittier, TR 880, 1800, 2520,
2530, 2540, 2550
Williams, D 1480
Wilson, HT 2270, 2490
Wilson, J 790
Wolfson, M 1480
Woodruff, T 650

Y

Yilala, K 130
Yoder, CO 850
Young, TC 520, 1700, 2560

Z

Zimmermann, RD 480