US ERA ARCHIVE DOCUMENT

References

- American Society for Testing and Materials (ASTM). (1991). *Guide for conducting 10-day static sediment toxicity tests with marine and estuarine amphipods, ASTM Standard Methods*, 11.04, Method Number E-1367-90, ASTM, Philadelphia, PA.
- Batiuk, R.A. and 15 others. (2000). "Chesapeake Bay submerged aquatic vegetation water quality and habitat-based requirements and restoration targets: A second technical synthesis". *EPA Chesapeake Bay Program Report*, Annapolis, MD.
- Boynton, W.R., Murray, L., Kemp, W.M., Hagy, J.D., Stokes, C., Jacobs, F., Bowers, J., Souza, S., Rinsky, B., and Seibel, J. (1993). "Maryland's Coastal Bays: An assessment of aquatic ecosystems, pollutant loadings and management options." Maryland Department of the Environment, Baltimore, MD.
- Bricker, S.B., Clement, C.G., Pirhalla, D.E., Orlando, S.P., and Farrow, D.R.G. (1999). "National Estuarine Eutrophication Assessment: Effects of nutrient enrichment in the nation's estuaries." NOAA, National Ocean Service, Special Projects and the National Centers for Coastal Ocean Science. Silver Spring, MD: 71 pp.
- Brongersma-Sanders, M. (1957). "Mass mortality in the sea". *In* Treatise on Marine Ecology and Paleoecology, J.W. Hedgepeth (Ed.). *Geol. Soc. Amer. Memoir* 67(1): 941-1010. National Academy of Sciences, Washington, DC.
- Chaillou, J.C., Weisberg, S.B., Kutz, F.W., DeMoss, T.E., Mangiaracina, L., Magnien, R., Eskin, R., Maxted, J., Price, K. and Summers, J.K. (1996). "Assessment of the Ecological Condition of the Delaware and Maryland Coastal Bays." *EPA/620/R-96/004*. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC.
- Cochran, W.G. (1977). Sampling Techniques. John Wiley & Sons, New York.
- Cox, L.H. and W.W. Piegorsch. (1996). "Combining environmental information in environmental monitoring, measurement and assessment". *Environmentrics* 7: 299-308.
- Cressie, N. and J. Aldworth. (1996). *Spatial statistical analysis and its consequences for spatial sampling. In* Proceedings of the Fifth International Geostatistics Congress. E. Baafi. Dordrecht, Kluwer.
- D'Elia, C.F., Connor, E.E., Kaumeyer, N.L., Keefe, C.W., Wood, K.V., and Zimmermann, C.F. (1997). *Nutrient Analytical Services Laboratory Standard Operating Procedures*. Technical Report Series #158-97. Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, Solomons, MD: 77 pp.
- Gilbert, R.O. (1987). *Statistical Methods for Environmental Pollution Monitoring*. Van Nostrand Reinhold, New York.

- Heimbuch, D.G., Wilson, H.T., Robson, D.S. and Summers, J.K. (1995). "Design-based estimation of the proportion of area degraded and associated variance estimators for EMAP-Estuaries sampling in the Louisianian and Virginian Provinces: 1990-1994". Draft report prepared for U.S. Environmental Protection Agency by Coastal Environmental Services, Linthicum, MD.
- Holland, A.F. (Ed.). (1990). "Near Coastal Plan for 1990: Estuaries". *EPA 600/4-90/033*, Office of Research and Development, U.S. Environmental Protection Agency, Narragansett, RI.
- Hyland, J.L., Snoots, T.R., and Balthis, W.L. (1996). "Sediment quality of estuaries in the Southeastern U.S." *Environmental Monitoring and Assessment* 51: 331-343.
- Johnson, B.T., and Long, E.R. (1988). "Rapid toxicity assessment from estuarine ecosystems: a new tandem in vitro testing approach." *Environmental Toxicity and Chemistry* 17(6): 1099-1106.
- Jones, K.B., Riiters, K.H., Wickham, J.D., Tankersley, R.D., O'Neill, R.V., Chaloud, D.J., Smith, E.R. and Neale, A.C. (1997). "An Ecological Assessment of the United States Mid-Atlantic Region". EPA/600/E-97/130. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC.
- Karr, J.R. (1981). "Assessment of biotic integrity using fish communities". Fisheries 6(6): 21-27.
- Karr, J.R. and E.W. Chu. (1999). *Restoring Life in Running Waters, Better Biological Monitoring*. Island Press, Washington, DC.
- Krebs, Charles J. (1989). Ecological Methodology. Harper Collins Publishers, New York. 360 pp.
- Lauenstein, G.G. and A.Y. Cantillo, eds. (1993). "Sampling and analytical methods of the National Status and Trends Program National Benthic Surveillance and Mussel Watch Projects 1984-1992: Comprehensive descriptions of trace organic analytical methods," Volume IV NOAA Technical Memorandum NOS ORCA 71, Silver Spring, MD. 182 pp.
- Long, E.R., MacDonald, D.D., Smith, S.L. and Calder, F.D. (1995). "Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments." *Environmental Management* 19(1): 81-97.
- Long, E.R. and L.G. Morgan. (1990). "The potential for biological effects of sediment-sorbed contaminants tested in the National Status and Trends Program." NOAA Tech. Memo NOS OMA 52. National Oceanic and Atmospheric Administration, Seattle, WA. 175p.
- Microbics Corporation. (1992). Microtox® Update Manual. Carlsbad, CA. 129p.
- National Research Council. (2000). "Clean Coastal Waters: Understanding and Reducing the Effects of Nutrient Pollution." Committee on the Causes and Management of Coastal Eutrophication Ocean Studies Board and Water Science and Technology Board, Commission on Geosciences, Environment, and Resources. National Academy Press, Washington, DC. 377 p.
- Nixon, S.W. (1995). "Coastal marine eutrophication: A definition, social causes, and future concerns." *Ophelia* 41: 199-219.

- Olsen, A.R. (1992). *Program Data Quality Objectives for EMAP Status and Trends Draft Report*. U.S. Environmental Protection Agency, Environmental Research Laboratory, Corvallis, OR.
- Olsen, A.R., Sedransk, J., Edwards, D., Gotway, C.A., Liggett, W., Rathbun, S., Reckhow, K.H. and Young, L.J. (1999). "Statistical issues for monitoring ecological and natural resources in the United States". *Environmental Monitoring and Assessment* 54: 1-45.
- Overton, W.S. (1990). A Strategy for use of Found Samples. Department of Statistics, Oregon State University, Corvallis, OR.
- Overton, W.S., White, D. and Stevens, D.L. (1990). *Design Report for EMAP*. Office of Research and Development, U.S. Environmental Protection Agency, Washington, DC 20460.
- 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 (Ed.). Oxford University Press, New York. 470-480 pp.
- Overton, J.M., Young, T.C. and Overton, W.S. (1993). "Using 'found' data to augment a probability sample: procedure and case study". *Environmental Monitoring and Assessment* 26(1): 65-83.
- Paul, J.F., Scott, K.J., Holland, A.F., Weisberg, S.B., Summers, S.K., and Robertson, A. (1992). "The estuarine component of USEPA's Environmental and Assessment Program". *Chemistry and Ecology* 7: 93-116.
- Paul, J.F., Gentile, J.H., Scott, K.J., Schimmel, S.C., Campbell, D.E. and Latimer, R.W. (1999). "EMAP-Virginian Province Four-Year Assessment (1990-93)". *EPA/620/R-99/004*, Office of Research and Development, U.S. Environmental Protection Agency, Washington, DC.
- Paul, J.F. (2002). "Developing and applying an index of environmental integrity for the U.S. Mid-Atlantic Region". In Press: *Journal of Environmental Management*.
- Ringwood, A.H., DeLorenzo, M.E., Ross, P.E., Holland, A.F. (1997). "Interpretation of Microtox solid-phase toxicity tests: The effects of sediment composition." *Envir. Toxicol. Chem.* 16: 1135-1140.
- Shannon C.F. and Weaver, W. (1949). *The mathematical theory of communication*. University of Illinois Press, Urbana. 117 pp.
- Stehman, S.V. and W.S. Overton. (1994). "Environmental Sampling and Monitoring". *In: Handbook of Statistics*. P. Patil and C.R. Rao (Eds.), Elsevier Science B.V. 12: 263-305.
- Stevens, D.L. (1997). "Variable density grid-based sampling designs for continuous spatial populations". *Environmetrics* 8: 167-195.
- Strobel, C.J., Buffum, H.W., Benyi, S.J., Petrocelli, E.A., Reifsteck, D.R. and Keith, D.J. (1995). Statistical Summary: EMAP-Estuaries Virginian Province 1990-1993. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC 20460.

- Strobel, C.J. (1998). Environmental Monitoring and Assessment Program Mid-Atlantic Integrated Assessment. Estuaries Component, Field Operations and Safety Manual. U.S. EPA, Office of Research and Development, NHEERL-AED, Narragansett, RI.
- Strobel, C.J., Buffum, H.W., Benyi, S.J. and Paul, J.F. (1999). "Environmental Monitoring and Assessment Program: current status of Virginian Province (U.S.) estuaries". *Environmental Monitoring and Assessment* 56: 1-25.
- Summers, J.K., Macauley, J.M., Engle, V.D., Brooks, G.T, Heitmuller, P.T., Adams, A.M. (1993). "Louisianian Province demonstration report: EMAP-Estuaries 1991". *EPA/620/R-94/001*. U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratory, Gulf Breeze, FL. 161 p.
- Summers, J.K., Paul, J.F., Robertson, A. (1995). "Monitoring the ecological condition of estuaries in the United States". *Toxicological and Environmental Chemistry* 49(1-2): 3-108.
- Swartz, R.C., DeBen, W.A., Jones, J.K.P., Lamberson, J.O. and Cole, F.A. (1985). "Phoxocephalid amphipod bioassay for marine sediment toxicity". *In* Aquatic Toxicology and Hazard Assessment: Seventh Symposium, ASTM STP 854. R.D. Cardwell, R. Purdy, and R.C. Bahner (Eds.). American Society for Testing and Materials, Philadelphia, PA. 284–307 pp.
- U.S. Environmental Protection Agency. (1991). "Draft analytical method for determination of acid volatile sulfide in sediment." *EPA/821/R-91/100*. U.S. Environmental Protection Agency, Office of Water, Washington, DC. 20 pp.
- USEPA. (1994). "Methods for assessing the toxicity of sediment-associated contaminants with estuarine and marine amphipods". *EPA 600/R-94/025*. U.S. Environmental Protection Agency, Office of Research and Development, Narragansett, RI.
- USEPA. (1995). "EMAP-Estuaries Laboratory Methods Manual, Volume I Biological and Physical Analyses". *EPA/620/R-95/008*. U.S. Environmental Protection Agency, Office of Research and Development, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, Narragansett, RI.
- USEPA. (1998). "Condition of the Mid-Atlantic Estuaries". *EPA 600-R-98-147*. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC.
- USEPA. (2000a). "Mid-Atlantic Highlands State of the Streams". Draft Final Report. *EPA 620-R-99-002*. U.S. Environmental Protection Agency, Office of Research and Development, Washington, DC.
- USEPA. (2000b). "Ambient aquatic life water quality criteria for dissolved oxygen (saltwater): Cape Cod to Cape Hatteras". *EPA-822-R-00-012*. U.S. Environmental Protection Agency, Office of Water, Washington, DC.
- USEPA. (2000c). "Guidance for assessing chemical contaminant data for use in fish advisories (Vol. 2): Risk assessment and fish consumption limits (Third edition)." *EPA 823-B-00-008*. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

- USEPA. (2001). Draft Report: Nutrient Criteria Technical Guidance Manual: Estuarine and Coastal Water. *EPA-822-B-01-003*. U.S. Environmental Protection Agency, Office of Water, Washington, DC.
- Valette-Silver, N. (1992). "Elemental Analyses in Marine Sediments and Biological Tissues. Quality Assurance Program: Summary 1985-1990". NOAA Technical Memorandum NOS ORCA 66.

 National Oceanic and Atmospheric Administration, National Ocean Service, Office of Ocean Resources Conservation and Assessment, Rockville, MD.
- Vernberg, F.S. (1972). "Dissolved gases". In: Marine Ecology, Vol. 1, Part 3. O. Kinne (ed.) Wiley-Interscience, New York. 1491-1526 pp.
- Weisberg, S.B., Frithsen, J.B., Holland, A.F., Paul, J.F., Scott, K.J., Summers, J.K., Wilson, H.T., Valente, R.M., Heimbuch, D.G., Gerritsen, J., Schimmel, S.C., Latimer, R.W. (1993). "Environmental Monitoring and Assessment Program. EMAP-Estuaries Virginian Province 1990 Demonstration Project Report". EPA/620/R-93/006. U.S. Environmental Protection Agency, Office of Research and Development, Environmental Research Laboratory. Narragansett, RI.