Deborah L. Swackhamer
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Research Interests

Fate and transport of persistent organic compounds in aquatic systems; endocrine disrupting compounds in aquatic systems; ecological risk assessment

Positions Held

3-85 to 11-86 Postdoctoral Research Associate, School of Public and Environmental Affairs and Department of Chemistry, Indiana University, Bloomington
12-86 to 6-92 Assistant Professor, Environmental and Occupational Health, School of Public Health, University of Minnesota, Minneapolis
7-92 to present Associate Professor, Environmental and Occupational Health, School of Public Health, University of Minnesota, Minneapolis

Education

1976 A.B. in Chemistry, Grinnell College, Iowa
1981 M.S. in Water Chemistry, University of Wisconsin, Madison
1985 Ph.D. in Oceanography and Limnology, University of Wisconsin, Madison

Selected Grants (out of 39 external grants totaling more than $4.7 million)

Quality Assurance Program for Sample Collection and Analyses: Green Bay Study, U.S. Environmental Protection Agency, 12/1/86-11/30/89, $93,000.

Microbial Recycling of Contaminants at the Sediment Water Interface in Freshwater, Principal Investigator, EPA Exploratory Research Program, 1/91-1/93, $224,337.

Atmospheric Deposition of Toxic Contaminants to the Great Lakes, Co-Investigator, Great Lakes Protection Fund, 1/91-1/94, $460,354.

Contaminant Transfer in the Lake Michigan Lower Pelagic Foodweb, PI, U.S. Environmental Protection Agency, 6/13/94 to 7/13/97, $450,000.

Bioavailability, Trophic Transfer and Fate of Pollutants in the Aquatic Environment, Principal Investigator U.S. EPA, University of Delaware, 9/15/94 to 9/15/99, $59,768.

Reducing Uncertainty in Estimating Toxaphene Loading to the Great Lakes, Principal Investigator, U.S. Environmental Protection Agency, 9/96-8/99, $650,151.

Bioaccumulation of Hydrophobic Organic Compounds by Phytoplankton, Principal Investigator, National Science Foundation, 7/99-7/01, $200,000.

Effects of Environmental Estrogens on Fish in the Vicinity of Metro Treatment Plant, St. Paul, Principal Investigator, Metropolitan Council Environmental Services, 3/99 - 3/02, $200,381.

Trends in Great Lakes Fish Contaminants, Principal Investigator, US EPA Great Lakes National Program Office, Chicago, 4/1/00-3/31/02, $298,000.

Selected Related Publications (out of total of 49 peer-reviewed)

Swackhamer, D.L. and S.J. Eisenreich. 1991. Processing of organic contaminants in lakes. In: Organic Contaminants in the Environment: Sources, Environmental Pathways and Effects. K.C. Jones, ed. Elsevier Applied Science Publishers.

Swackhamer, D.L. and R.S. Skoglund. 1993. Bioaccumulation of PCBs by phytoplankton: kinetics vs. equilibrium. *Environ. Toxicol. Chem. 12*, 831-838.

Stange, K. and D.L. Swackhamer. 1994. Factors affecting phytoplankton species-specific differences in accumulation of 40 PCB congeners. *Environ. Toxicol. Chem.* 13:1849-1860.

Hornbuckle, K.C., C.W. Sweet, R.F. Pearson, D.L. Swackhamer, and S.J. Eisenreich. 1995. Annual, seasonal, and instantaneous air-water fluxes of PCBs in Lake Michigan. *Environ. Sci. Technol.* 29, 869-877.

Jepsen, R., S. Borglin, W. Lick, and D.L. Swackhamer. 1995. Factors affecting the sorption of hexachlorobenzene to sediments. *Environ. Toxicol. Chem*. 14:1487-1497.

Wong, C.S., G. Sanders, D.R. Engstrom, D.T. Long, D.L. Swackhamer and S.J. Eisenreich. 1995. Accumulation, inventory and diagenesis of chlorinated hydrocarbons in Lake Ontario sediments. *Environ. Sci. Technol.* 29, 2661-2672.

Pearson, R.F., K.C. Hornbuckle, K.A. Golden, S.J. Eisenreich, D.L. Swackhamer. 1996. PCBs in Lake Michigan water: comparison to 1980 and a mass budget for 1991. *Environ. Sci. Technol.*, 30:1429-1436.

Skoglund, R.S., K. Stange and D.L. Swackhamer. 1996. A kinetics model for predicting the accumulation of PCBs in phytoplankton. *Environ. Sci. Technol.*, 30:2113-2120.

Swackhamer, D.L. 1996. Studies of PCBs in the Great Lakes. *Issues Environ. Sci. Technol.*, Number 6, Royal Society of Chemistry, 137-153.

Simcik, M.F., K.A. Golden, S.-P. Liu, S.J. Eisenreich, E.Lipiatou, D.L. Swackhamer and D.T. Long. 1996. Atmospheric loading of polycyclic aromatic hydrocarbons to Lake Michigan as recorded in the sediments. *Environ. Sci. Technol.*, 30:3039-3046.

Herbrandson, C., S.P. Bradbury, and D.L. Swackhamer. 1998. A new testing apparatus for assessing the interactive effects of a physical and chemical stressor. *Environ. Toxicol. Chem.*, 18(4): 679-684.

Pearson, R.F., D.L. Swackhamer, S.J. Eisenreich, and D.T. Long. 1997. Concentrations, accumulations, and inventories of polychlorinated dibenzo-p-dioxins and dibenzo-furans in sediments of the Great Lakes. *Environ. Sci. Technol.* 31:2903-2909.

Pearson, R.F., D.L. Swackhamer, S.J. Eisenreich, and D.T. Long. 1997. Concentrations, accumulations, and inventories of toxaphene in sediments of the Great Lakes. *Environ. Sci. Technol.* 31:3523-3529.

Pearson, R.F., D.L. Swackhamer, S.J. Eisenreich, D.T. Long. 1998. Atmospheric inputs of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans to the Great Lakes: Compositional comparison of PCDD and PCDF in sediments. *J. Great Lakes Res.*, 24:65-82.

Swackhamer, D. L., R.F. Pearson and S. Schottler. 1999. Air-water exchange and mass balance of toxaphene in the Great Lakes. *Environ. Sci. Technol.*, 33: 3864-3872.

Skoglund, R. S. and D.L. Swackhamer. 1999. Evidence for the use of organic carbon as the sorbing matrix in the modeling of PCBs accumulation in phytoplankton. *Environ. Sci. Technol.*, 33: 1516-1519.

Swackhamer, D.L.2000. Processing of organic contaminants by large lakes: impacts and fates. *Verhandlungen*. In press.

Trowbridge, A.G. and D.L. Swackhamer.2000. Biomagnification of toxic PCB congeners in the Lake Michigan foodweb. In Persistent Bioaccumulative Toxic Compounds in the Environment, R. Lipnick, D. Muir, J. Hermens, K.C. Jones, eds. Advances in Chemistry Series, American Chemical Society, Washington, D.C. In press.