

Christine M. Mayer

Department of EEES, University of Toledo, Lake Erie Center, 6200 Bayshore Rd., Oregon OH 34618,
(419) 530-8377, christine.mayer@utoledo.edu

PROFESSIONAL PREPARATION

Ph.D. Cornell University, Department of Natural Resources; 1998.
M.S. University of Illinois, Urbana-Champaign, Department of Biology; 1994
B.S. University of Illinois, Urbana-Champaign, Department of E.E.E.; 1987.

APPOINTMENTS

2003 Assistant Professor, Department of Environmental Sciences
2000-2003 Assistant Professor, Department of Biology, Syracuse University
1999 Post-Doctoral Research Associate, University of North Carolina Greensboro
1998 Adjunct faculty, College of Charleston
1994-1998 Sea Grant Scholar, Cornell Biological Field Station
1991-1993 Graduate Research Assistant, Center for Aquatic Ecology, Illinois Natural History Survey
1988-1990 United States Peace Corps, Aquaculture Extension Agent, Togo, West Africa

PUBLICATIONS

- **Elkington, B., **Mayer C.M.**, Bridgeman, T.B. The effects of algal and sediment turbidity on zooplankton consumption by young of year yellow perch (*Perca flavescens*). *In preparation* for submission to Transactions of the American Fisheries Society.
- Haynes, J. M., N.A. Tisch, **C. M. Mayer**, and R. S. Rhyne. 2004. Benthic macroinvertebrate communities in southwestern Lake Ontario following invasion of *Dreissena* and *Echinogammarus*: 1983 – 2000. *Journal of the North American Benthological Society* 24:148–167.
- Hershey A.E., Beaty, S. Fortino, K., Keyse, M., Mou, P.P., O'Brien, W.J., Ulseth, A.J., Gettel, G.A., Lienesch, P.W., Luecke, C., McDonald, M.E., **Mayer, C.M.** 2005. Effect of landscape factors on fish distribution in arctic Alaskan lakes. *Freshwater Biology* 51(1):39-55
- **Johnson, R.K. , **Mayer, C.M.**, Mills, E.L. and Schulz, K.L. In submission. Increased benthic algal primary production in response to zebra mussel (*Dreissena polymorpha*) invasion in Oneida Lake. In review *Journal of the North American Benthological Society*
- **Lohner R. N., W.V. Sigler, **C.M. Mayer**, and C. Balogh 2006. A comparison of the benthic microbial community within and surrounding *Dreissena* clusters in lakes. *Accepted with revisions*, *Microbial Ecology*.
- Mayer, C.M.** and D.H. Wahl. 1997. The relationship between prey selectivity and growth and survival in a larval fish. *Canadian Journal of Fisheries and Aquatic Science* 54: 1504-1512.
- Mayer, C.M.**, J.L. Forney, L.G. Rudstam, A.J. VanDeValk, and E.L. Mills. 2000. The response of yellow perch in Oneida Lake, NY to zebra mussel establishment. *Canadian Journal of Fisheries and Aquatic Science* 57: 742-754.
- Mayer, C.M.**, R.A. Keats, E.L. Mills, and L.G. Rudstam. 2002. Zebra mussels as ecosystem engineers: scale-dependent effects on benthic invertebrates in a large eutrophic lake. *Journal of the North American Benthological Society* 21:616-633.
- Mayer, C.M.**, Rudstam L.G., Mills E.L., Cardiff S.G., Bloom C.A. 2001. Zebra mussels (*Dreissena polymorpha*), habitat alteration, and yellow perch (*Perca flavescens*) foraging: system-wide effects and behavioural mechanisms *Canadian Journal of Fisheries and Aquatic Science* 58: 2459-2467.
- **Qin, P, **Mayer C.M.**, Schulz K.L., Ji, X. and Ritchie, M. *In Review*. Ecological stoichiometry in benthic food webs: light and nutrients effects on periphyton food quantity and quality in lakes. *Accepted with revision at Limnology and Oceanography*.
- Rutherford, E.S., K.A. Rose, E.L. Mills, J.L. Forney, **C.M. Mayer**, and L.G. Rudstam. 1999. Individual-

based model simulations of zebra mussel (*Dreissena polymorpha*) impacts on walleye (*Stizostedion vitreum*) and yellow perch (*Perca flavescens*) populations in Oneida Lake, New York. *Canadian Journal of Fisheries and Aquatic Science* 56: 2148-2160.

Zhu B., D.G. Fitzgerald, S.B. Hoskins, L.G. Rudstam, **C.M. Mayer, and E.L. Mills. 2006.

Quantification of response of submerged aquatic vegetation to historical changes in water clarity in two bays of Lake Ontario. *Accepted*, *Journal of Great Lakes Research*.

Zhu, B., Fitzgerald, D.M., **Mayer, C.M., Rudstam, L.G., and Mills, E.L. 2006 Alteration of ecosystem function by zebra mussels in Oneida Lake, NY: impacts on submerged macrophytes. *Ecosystems* 9:1-12.

** indicated graduate advisee or research technician under my direct supervision

SYNERGISTIC ACTIVITIES

-Grant Review Panels: USDA

-Grant Reviewer: NSF, NOAA Coastal Oceans Program, USDA

-Journal reviewer: *Canadian Journal of Fisheries & Aquatic Sciences*, *Ecological Applications*, *Transactions of the American Fisheries Society*, *Journal of the North American Benthological Society*, *Journal of the Marine Biological Association of the United Kingdom*, *Living Aquatic Resources*

-Best Student Paper Judge: International Assoc. for Great Lakes Research, American Fisheries Society, North American Benthological Society

-Committee member for J.F. Allen Scholarship Award to women Phd. students in fisheries science, by the American Fisheries Society

SCIENTIFIC COLLABORATIONS OUTSIDE OF THE UNIVERSITY OF TOLEDO

J. M. Haynes; S.U.N.Y. Brockport

N. A. Tisch, Fitzgerald, D.M., Rudstam, L.G., and Mills, E.L; Cornell University

B. Zhu, Peibing Qin, R. Johnson, M. Ritchie; Syracuse University

L. E. Burlakova, A. Karatayev; Steven A. Austin University

P. Eklöv; Uppsala University, Sweden

S. Ludsin ; NOAA-Great Lakes Ecological Research Laboratory

S. Millard; DFO Canada

K. Schulz, and K. Limburg, and Xinli Ji; SUNY College of Environmental Science and Forestry

GRADUATE AND POST DOCTORAL ADVISORS

Master's Degree: David H. Wahl, University of Illinois, Urbana-Champaign/ Illinois Natural History Survey

Ph.D.: Lars Rudstam, Cornell University and Edward Mills, Cornell University

Post Doctoral: Anne Hershey, UNC-Greensboro

CURRENT GRADUATE STUDENTS

Peibing Qin (SU, PhD), Kristen Devanna (UT, MS/PhD), Colleen Wellington (UT, MS)

COMPLETED GRADUATE STUDENTS

Rebecca Johnson (SU, MS) 2005, Bin Zhu (SU, PhD) 2006, Brian Elkington (UT, MS) 2006