

## Christine M. Mayer

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### EDUCATIONAL HISTORY

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

### PROFESSIONAL EXPERIENCE

2014-present Professor, Department of Environmental Sciences, University of Toledo  
2009-2014 Associate Professor, Department of Environmental Sciences, University of Toledo  
2003-2009 Assistant Professor, Department of Environmental Sciences, University of Toledo  
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

### REFEREED PUBLICATIONS:

\*\* Indicates graduate advisee or research technician  
\* Indicates undergraduate student

- Nowicki, C.J., Bunnell, D.B., Armenio, P.M., Warner, D.M., Vanderploeg, H.A., Cavaletto, J.F., Mayer, C.M., Adams, J.V. 2017. Biotic and abiotic factors influencing zooplankton vertical distribution in Lake Huron. *Journal of Great Lakes Research*. <https://doi.org/10.1016/j.jglr.2017.08.004>
- \*\*DuFour, M. R., Mayer, C. M., Kocovsky, P. M., Qian, S. S., Warner, D. M., Kraus, R. T., and C. S. Vandergoot. 2017. Sparse targets in hydroacoustic surveys: Balancing quantity and quality of in situ target strength data. *Fisheries Research*, 188: 173-182.
- Simic Milas, A., Arend, K., **Mayer, C.M.**, Simonson, M.A., and Mackey, S. 2017. Different colours of shadows: classification of UAV images. *International Journal of Remote Sensing*. 38:3084-3100 <http://dx.doi.org/10.1080/01431161.2016.1274449>
- \*\*Embke, H.S., Kocovsky, P.M., Richter, C.A., Pritt, J.J., **Mayer, C.M.**, Qian, S.S. 2016. First direct confirmation of grass carp spawning in a Great Lakes tributary. *Journal of Great Lakes Research*. 42:899-903. <http://dx.doi.org/10.1016/j.jglr.2016.05.002>
- \*\*Ross, J. E., **Mayer, C. M.**, Tyson, J. T., and Weimer, E. J. 2016. Comparison of electrofishing techniques and effort allocation across diel time periods, seasons, sites, and habitat in the Ohio coastal waters of western Lake Erie. *North American Journal of Fisheries Management* 36:85-95. DOI: 10.1080/02755947.2015.1111275
- \*\*DuFour, M.R., May, C.J., Roseman, E.F., **Mayer, C.M.**, Ludsin, S.A., Vandergoot, C.S., \*\*Pritt, J.J., Fraker, M.E., Davis, J.J., Tyson, J.T., Miner, J.G., and Marschall, E.A. 2015.

- Portfolio theory as a management tool to guide conservation and restoration of multi-stock fish populations. *Ecosphere* 6:1-21. DOI: 10.1890/ES15-00237.1
- \*\*Armenio, P.M., **Mayer, C.M.**, Heckathorn, S.A., Bridgeman, T.B., and Panek, S.E. 2015. Resource contributions from dreissenid mussels to the benthic algae *Lyngbya wollei* (Cyanobacteria) and *Cladophora glomerata* (Chlorophyta). *Hydrobiologia* 763:35-51. DOI: 10.1007/s10750-015-2357-3
- Fraker, M.E., Anderson, E.J., May, C.J., Chen, K.Y., Davis, J.J., DeVanna, K.M., \*\*DuFour, M.R., Marschall, E.A., **Mayer, C.M.**, Miner, J.G., Pangle, K.L., \*\*Pritt, J.J., Roseman, E.F., Tyson, J.T., Zhao, Y., and Ludsins, S.A. 2015. Stock-specific advection of larval walleye (*Sander vitreus*) in western Lake Erie: Implications for larval growth, mixing, and stock discrimination. *Journal of Great Lakes Research* 41(3):830–845. DOI:10.1016/j.jglr.2015.04.008
- \*\*DuFour, M. R., \*\*Pritt, J.J., **Mayer, C.M.**, Stow, C.A., and Qian, S.S. 2014. Bayesian hierarchical modeling of larval walleye (*Sander vitreus*) abundance and mortality: Accounting for spatial and temporal variability on a large river. *Journal of Great Lakes Research*, DOI: 10.1016/j.jglr.2014.08.001
- \*\*Pritt, J.J., \*\*DuFour M.R., **Mayer, C.M.**, Roseman E.F., and DeBruyne, R.L. 2014. Sampling little fish in big rivers: larval fish detection probabilities in two Lake Erie tributaries and implications to abundance indices and richness estimates. *Transactions of the American Fisheries Society* 143(4) 1011-1027. DOI: 10.1080/00028487.2014.911204
- \*Mapes, R.L. \*\*DuFour, M.R., \*\*Pritt, J.J., and **Mayer, C.M.** 2014. Larval Fish Assemblage Recovery: A Reflection of Environmental Change in the Maumee River, Ohio. *Restoration Ecology* <http://onlinelibrary.wiley.com/doi/10.1111/rec.12138/full>.
- \*\*Manning N., **Mayer, C.M.**, Bosenbroek, J., Bunnell, B., Tyson, J., Rudstam, L., and Jackson, J.R. 2014. Use of IBMs to explore the effects of turbidity on the growth & survival of Yellow Perch. *Canadian Journal of Fisheries and Aquatic Sciences* 71:1544-1553. DOI: 10.1139/cjfas-2013-0528
- Burlakova, L.E., Karatayev A.Y, Pennuto, C.M., and **Mayer, C.M.** 2014. Changes in Lake Erie benthos over the last 50 years: historical perspectives, current status, and main drivers. *Journal of Great Lakes Research* <http://dx.doi.org/10.1016/j.jglr.2014.02.008>
- Pennuto, C.M., Burlakova, L.E., Karatayev, A.Y., Kramer, J., Fischer, A., and **Mayer, C.M.** 2014. Spatiotemporal characteristics of nitrogen and phosphorus in the benthos of nearshore Lake Erie. *Journal of Great Lakes Research* 40(3): 541-549
- Deal, M.W., Xu, J., John, R., Zenone, T., Chen, J., Chu, H., Jasrotia, P., Kahmark, K., Bossenbroek, J., and **Mayer, C.M.** 2014. Net primary production in three bioenergy crop systems following land conversion. *Journal of Plant Ecology* 7 (5): 451-460
- \*\*DeVanna, K.M., Bossenbroek, J.M., and **Mayer, C.M.** 2013. Interactions between an exotic ecosystem engineer (*Dreissena* spp.) and native burrowing mayflies (*Hexagenia* spp.) in soft sediments of western Lake Erie. Pages 611-620 in Zebra Mussels: Biology, Impact, and Control. T. Nalepa and D. Schloesser eds.
- Mayer, C.M.** and 10 authors. 2013. The benthification of freshwater lakes: exotic mussels turning ecosystems upside down. Pages 575-583 in Zebra Mussels: Biology, Impact, and Control. T. Nalepa and D. Schloesser eds.
- \*\*Manning N., **Mayer, C.M.**, Bossenbroek, J.B., and Tyson, J.T. 2013. Effects of water clarity on the length and abundance of age-0 Yellow Perch in the Western Basin of Lake Erie. *Journal of Great Lakes Research* 39:295-302. Available online <http://dx.doi.org/10.1016/j.jglr.2013.03.010>

- \*\*Pritt, J.J., \*\*DuFour, M.R., **Mayer, C.M.**, Kocovsky, P.M., Tyson, J.T., and Weimer, E.J. 2013. Including independent estimates and uncertainty to quantify total abundance of fish migrating in a large river system: Walleye (*Sander vitreus*) in the Maumee River, OH. Canadian Journal of Fisheries and Aquatic Resources 70:803-814
- Cooper, J.E., Walquist, E., Holeck, K.T., Hoffman, C.E., Mills, E.L. and **Mayer, C.M.** 2012. Density and distribution of amphipods in Oneida Lake, New York, after the introduction of the exotic amphipod *Echinogammarus ischnus*. Northeastern Naturalist 19:249-266
- \*\*DeVanna, K.M., Bodamer, B.L., Wellington, C.G., Hammer, E., Bossenbroek, J.M., and **Mayer, C.M.** 2011. An alternative hypothesis for invasional meltdown: General facilitation by *Dreissena*. Journal of Great Lakes Research 37:632-641
- \*\*DeVanna, K.M., \*Armenio, P.M., \*Barrett, C.A., and **Mayer, C.M.** 2011. Invasive ecosystem engineers on soft sediment change the habitat preferences of native mayflies and their availability to predators. Freshwater Biology 56:2248-2458
- \*\*Wellington C., **Mayer, C.M.**, Bossenbroek, J.M. and \*Stroh, N.M. 2010. Effects of turbidity and prey density on the foraging success of age-0 Yellow Perch (*Perca flavescens*). Biology of Fishes 76: 1729–1741
- Limburg, K.E., Luzadis, V.A., Ramsey, M., Schulz, K.L., and **Mayer, C.M.** 2010. The good, the bad, and the algae: perceiving ecosystem services and disservices generated by zebra and quagga mussels. Journal of Great Lakes Research 36: 86–92
- \*\*Cecala, R.K., **Mayer, C.M.**, Mills, E.L. and Schulz, K.L. 2008 Increased benthic algal primary production in response to zebra mussel (*Dreissena polymorpha*) invasion in Oneida Lake. Journal of Integrated Plant Biology 50:1452-1466
- \*\*Zhu, B., **Mayer, C.M.**, Rudstam, L.G., Mills, E.L., and Ritchie, M.E. 2008. Experimental examination of light and phosphorus effects on submerged macrophytes: implications for ecosystem changes in North American lakes. Aquatic Botany 88: 358-362
- \*\*Lohner R. N., Sigler, W.V., **Mayer, C.M.**, and \*\*Balogh, C. 2007. A comparison of the benthic microbial community within and surrounding *Dreissena* clusters in lakes. Microbial Ecology 54:469-477
- \*\*Qin, P., **Mayer, C.M.**, Schulz, K.L., Ji, X., and Ritchie, M. 2007. Ecological stoichiometry in benthic food webs: light and nutrients effects on periphyton food quantity and quality in lakes. Limnology and Oceanography 52: 1728-1734.
- \*\*Zhu, B., Fitzgerald, D.G., Hoskins, S.B., Rudstam, L.G., **Mayer, C.M.**, and Mills, E.L. 2007. Quantification of response of submerged aquatic vegetation to historical changes in water clarity in two bays of Lake Ontario. Journal of Great Lakes Research 33:122-135
- \*\*Zhu, B. **Mayer, C.M.**, Heckathorn, S.A., and Rudstam, L.G. 2007. Can dreissenid attachment and biodeposition affect submerged macrophyte growth? Journal of Aquatic Plant Management 45:71-76
- \*\*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
- 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., and **Mayer, C.M.** 2005. Effect of landscape factors on fish distribution in arctic Alaskan lakes. Freshwater Biology 51(1):39-55
- Haynes, J. M., Tisch, N.A., **Mayer, C. M.**, and Rhyne, R.S. 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

- Mayer, C.M.**, \*Keats, R.A., Mills, E.L., and Rudstam, L.G. 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., and \*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
- Rutherford, E.S., Rose, K.A., Mills, E.L., Forney, J.L., **Mayer, C.M.**, and Rudstam, L.G. 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
- Mayer, C.M.**, Forney, J.L., Rudstam, L.G., VanDeValk, A.J., and Mills, E.L. 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.** and Wahl, D.H. 1997. The relationship between prey selectivity and growth and survival in a larval fish. Canadian Journal of Fisheries and Aquatic Science 54: 1504-1512

**OTHER PUBLICATIONS:**

- Mayer, C.M.**, Clapp, D., Hooe, M., Einfalt, L., and Wahl, D.H. 1992. Evaluation of Walleye Stocking Program. Federal Aid in Sport Fish Restoration Project F-118-R1, Illinois Natural History Survey, Aquatic Ecology Technical Report, Champaign, Illinois
- Clapp, D.F., **Mayer, C.M.**, Hooe, M., Wahl, D.H., Brooks, R., Harrison, D., Waddell, J., and Heidinger, R. 1993. Evaluation of Walleye Stocking Program. Federal Aid in Sport Fish Restoration Project F-118-R2, Illinois Natural History Survey, Aquatic Ecology Technical Report, Champaign, Illinois
- Clapp, D.F., **Mayer, C.M.**, Wahl, D.H., Brooks, R., Harrison, D., Waddell, J., and Heidinger, R. 1994. Evaluation of Walleye Stocking Program. Federal Aid in Sport Fish Restoration Project F-118-R3, Illinois Natural History Survey, Aquatic Ecology Technical Report, Champaign, Illinois

**RESEARCH SUPPORT AT UNIVERSITY OF TOLEDO**

Title	Sponsor Name	Role	Start	End	Amount
<b>Assessing human-driven perturbations of production in western Lake Erie.</b>	University of Toledo's summer research and fellowship program	PI	2004		\$10,000
<b>Experimental and spatial modeling of environmental factors affecting foraging success of age-0 yellow perch</b>	Great Lakes Fishery Commission	PI	2007	2010	\$146,640

<b>Yellow Perch Foraging on Hexagenia spp.: Effects of Hypoxia and Dreissena spp.</b>	Ohio Lake Erie Commission	PI	2007	2008	\$9,891
<b>Effects of Bay Shore power plant on ecosystem function in Maumee Bay, w. Lake Erie.</b>	NOAA, Sea Grant	PI	2009	2012	\$750,000
<b>The Lake Erie Nearshore and Offshore Nutrient Study</b>	US EPA	PI	2010	2011	\$50,000
<b>Nearshore Fish Sampling Program Development</b>	OH DNR-DOW	PI	2010	2014	\$176,500
<b>Annual GLERL-CILER Long-Term Great Lakes Fellowship Program</b>	University of Michigan	PI	2011	2012	\$23,000
<b>Nearshore Fish Sampling Program Development, supplement for larval fish</b>	OH DNR-DOW	PI	2012	2012	\$12,000
<b>Larval Walleye Abundance Estimation in the Maumee River</b>	OH DNR-DOW (subcontracted via OSU)	PI	2013	2014	\$20,723
<b>Larval Walleye Data Analysis</b>	OH DNR-DOW (subcontracted via OSU)	PI	2013	2015	\$12,000
<b>Determining the contribution of Maumee River fisheries production to western Lake Erie stocks</b>	U.S. Geological Survey	PI	2013	2017	\$435,470
<b>Hydroacoustic Determination of distribution and abundance of Lake Erie Walleye</b>	Ohio State University	PI	2013	2014	\$95,578
<b>Hydroacoustic Determination of distribution and abundance of Lake Erie Walleye</b>	Ohio State University	PI	2014	2015	\$95,578
<b>Hydroacoustic Determination of Distribution and Abundance of Lake Erie Walleye</b>	Ohio State University	PI	2015	2016	\$59,345
<b>Hydroacoustic Determination of Distribution and Abundance of Lake Erie Walleye</b>	Ohio State University	PI	2016	2017	\$21,884
<b>Food web structure and trophic transfer across Lake Erie's productivity gradient</b>	U.S. Geological Survey	PI	2014	2016	\$94,073
<b>Maumee River Lake Sturgeon Restoration Plan</b>	U.S. Fish and Wildlife Service	PI	2014	2016	\$99,981
<b>Food-web linkages between nearshore and offshore Lake Michigan (CSMI 2015)</b>	U.S. Geological Survey	PI	2014	2017	\$251,687

<b>Building Resilient Shorelines: Phase 1</b>	OH DNR-OCM	PI	2015	2016	\$51,105
<b>Building Resilient Shorelines: Phase 2</b>	OH DNR-OCM	PI	2015	2017	\$131,909
<b>Building Resilient Shorelines: Phase 3, Data Collection</b>	OH DNR-OCM	PI	2017	2017	\$28,589
<b>Building Resilient Shorelines: Phase 3</b>	OH DNR-OCM	Co-I	2017	2018	\$101,238
<b>Assessment of Riverine Habitat Restoration in the St. Clair-Detroit Rivers System</b>	U.S. Geological Survey	PI	2015	2017	\$323,375
<b>Examination of Factors Influencing Lake Whitefish Recruitment in the Detroit River and Western Lake Erie</b>	U.S. Geological Survey	PI	2016	2018	\$96,968
<b>Analysis of Zooplankton Samples from Detroit River</b>	Environment Canada	PI	2015	2016	\$13,423
<b>Linking Fish to Lower Trophic Level Variability in Lake Huron (CSMI 2017)</b>	U.S. Geological Survey	PI	2017	2019	\$59,380
		PI Total=			<b>\$3,170,337</b>
<b>Low P and high F: testing for unexpected synergistic effects of phosphorus abatement and bivalve filtration.</b>	New York Sea Grant				
<b>Planning Proposal for the Lake Erie Center</b>	National Science Foundation	CI	2006	2007	\$24,888
<b>REU Site: Integrated Assessment of Physical, Ecological, and Socio-economic Aspects of a Watershed System.</b>	National Science Foundation	CI	2006	2008	\$258,910
<b>Assessing the Role of Turbid River Plumes in the Development of Microcystis Blooms in Lake Erie</b>	Ohio State University Research Foundation	CI	3/07	1/10	\$52,634
<b>Role of Turbid River Plumes in the Development of Microcystis Blooms in Lake Erie</b>	Ohio Lake Erie Commission	CI	7/07	12/09	\$52,634
<b>Lake Erie Algal Source Tracking</b>	U.S. EPA	CI	6/09	6/11	\$101,304
<b>Assessment of Nutrient/Eutrophication</b>	Ohio Lake Erie Commission	CI	2/14	5/16	\$65,043

<b>Dynamics in Western Lake Erie</b>					
<b>Grass carp spawning potential in the Sandusky River basin</b>	U.S. Geological Survey	CI	1/15	5/17	\$105,059
<b>Vegetation Surveying in Support of Grass Carp Spawning Potential in the Sandusky River Basin</b>	U.S. Geological Survey	CI	8/15	9/17	\$112,706
		CI Total=			<b>\$773,178</b>

## RESEARCH SUPPORT PRIOR TO UNIVERSITY OF TOLEDO

### 2002

- The Great Lakes Fishery Commission with Co-PIs S. Millard, E. Mills et al., for the project "Comparative modeling of the ecosystem impacts of exotic invertebrates and productivity changes on fisheries in the Bay of Quinte and Oneida Lake"
- The Great Lakes Protection Fund. (\$150,000) "Algal Pigments to Trace Food-Web Connections to Type E Avian Botulism in Lakes Erie and Ontario" with Co-PIs K. Alben, SUNY-Albany, A. Perez-Fuentetaja, SUNY Fredonia, J. Makarewicz, SUNY Brockport, R. Limberger, SUNY-Albany, Ward Stone, NYS-DEC.

### 2001

- New York Sea Grant (\$187,430) with co-PIs E. Mills, and D. Fitzgerald, Cornell University, for project "Benthification of Great Lakes Ecosystems and the Consequences to Fish Populations and Communities"
- The Great Lakes Protection Fund (\$6,600) with co-PI N. Tisch, Cornell University, for the project "Spatial distribution and foodweb impacts of *Echinogammarus ischnus*, an invasive benthic crustacean"

2000 Internship for Karen Moll (\$1,000) as part of the Cornell Biological Field Station research internship program

1999 Great Lakes Research Consortium, (\$21,450) with co-PIs N. Tisch, Cornell University, and J. Haynes, SUNY Brockport, for the project "Impact assessment of the introduced amphipod *Echinogammarus ischnus* in the Great Lakes"

## CONFERENCE PAPERS

\*\* Indicates graduate advisee or research technician

\* Indicates undergraduate student

### 2017

Embke, H., Qian, S., Kocovsky, P., **Mayer, C. M.** February 2017. Updated Estimated Spawning and Hatch Locations of Naturally Spawned Grass Carp Eggs in a Great Lakes Tributary. IN-OH Chapters of the American Fisheries Society joint meeting.

Embke, H., Qian, S., Kocovsky, P., **Mayer, C. M.** May 2017. Bayesian Modeling Framework for Identifying Conditions Favorable for Grass Carp Spawning. International Association of Great Lakes Research Annual Conference, Detroit MI.

- Embke, H., Richter, C.A., Garcia, T., Kocovsky, P., **Mayer, C. M.**, Qian, S. 2017. Updated estimated spawning and hatch locations of naturally spawned grass carp eggs in a Great Lakes Tributary. Midwest Fish and Wildlife Conference. Lincoln, NE. February.
- Fischer, J.L., **C. Mayer**, E. Roseman, G. Kennedy, J. Craig, B. Manny, and D. Bennion. 2017. Utilizing Velocity and Substrate Mapping to Guide Habitat Restoration. Research Review. Columbus, OH. February. poster
- Fischer, J.L., E.F. Roseman, D. Mifsud, S. Ireland, R. DeBruyne, M. Foose, R. Ellison, **C.M. Mayer**, G. Kennedy, and S.A. Jackson. 2017. Methods for Evaluating Shallow Water Habitat Restoration in the St. Clair River. Midwest Fish and Wildlife Conference. Lincoln, NE. February.
- Fischer, J.L., E.F. Roseman, G.W. Kennedy, J. Craig, B.A. Manny, D.H. Bennion, and **C. Mayer**. 2016. Utilizing Velocity and Substrate Mapping to Guide Habitat Restoration. "Workshop for the Future of Baltic Sea Whitefish Stocks - Heading for Sustainable Resources and Natural Reproduction." Natural Resources Institute of Finland (Luke), Helsinki, Finland. November 29-December 1, 2016. INVITED KEYNOTE
- Fischer, J.L., T.C. Wills, E. Roseman, G. Kennedy, N.A. Williams, and **C.M. Mayer**. 2017. Physical Maturation of Artificial Reefs in the St. Clair-Detroit River System. 60th Annual Meeting of the International Association of Great Lakes Research, Detroit, MI, May. PLATFORM.
- Keeler, K.M., J.L. Fischer, S. Provo, R. DeBruyne, **C.M. Mayer**, A.S. Briggs, J.C. Boase, J.M. Hessenauer, M.V. Thomas, K.E. Wehrly, T.C. Wills, J.E. Ross, D. Mifsud, M. Stapleton, K.R. Greenwald, J.L. Sutherland, D.A. Bowser, S.A. Ireland, E.A. Galassini, S.A. Jackson, G. Kennedy, and E.F. Roseman. 2017. Minnows, Madtoms, and Mudpuppies: Sensitive Species in Restored Habitats. 60th Annual Meeting of the International Association of Great Lakes Research, Detroit, MI, May. PLATFORM.
- Keeler, K.M., three authors, and **Mayer, C. M.** May 2017. From Nearshore to Offshore: A Comparison of Zooplankton Taxa within the Detroit River. International Association of Great Lakes Research Annual Conference, Detroit MI.
- King, N.R., Embke, H., Kocovsky, P.M, **Mayer, C. M.** and Qian, S.S. May 2017. Fish use chronology of the Sandusky River to inform Grass Carp management actions. International Association of Great Lakes Research Annual Conference, Detroit MI.
- King, N.R., Hanson, J.L., Kocovsky, P.M, **Mayer, C. M.** and Qian, S.S February 2017. Mapping and monitoring aquatic vegetation in Lake Erie for grass carp risk assessment. IN-OH Chapters of the American Fisheries Society joint meeting.
- Nowicki, C.J. three authors, and **Mayer, C. M.** May 2017. Comparing niche space overlap and trophic shifts between Lakes Michigan and Huron. International Association of Great Lakes Research Annual Conference, Detroit MI.
- Roseman, E.F., D. Bennion, J. Boase, J. Chiotti, J. Craig, R. DeBruyne, R. Drouin, R. Ellison, J. Fischer, M. Foose, J. Hartig, J.M. Hessenauer, D. Hondorp, G. Kennedy, R.L. Knight, B. Manny, **C. Mayer**, J. Read, M. Selzer, M. Thomas, L. Vaccaro, C. Vandergoot, and T. Wills. 2016. Lessons Learned From Fish Spawning Habitat Restoration in St. Clair and Detroit Rivers, North America. "Workshop for the Future of Baltic Sea Whitefish Stocks - Heading for Sustainable Resources and Natural Reproduction." Natural Resources Institute of Finland (Luke), Helsinki, Finland. November 29-December 1, 2016. INVITED KEYNOTE PLATFORM
- Roseman, E.F., J.L. Fischer, D. Mifsud, S.A. Ireland, R. DeBruyne, M. Foose, R. Ellison, **C.M. Mayer**, G. Kennedy, S.A. Jackson, and S. Provo. 2017. Evaluating Shallow Water

- Habitat Restoration in the St. Clair River. 60th Annual Meeting of the International Association of Great Lakes Research, Detroit, MI, May POSTER.
- Schmidt, B.A., E.F. Roseman, N. King, J.L. Fischer, **C.M. Mayer**, G. Kennedy, S. Provo, and P. Wigren. 2017. Sampling Characteristics of Egg Mats. Midwest Fish and Wildlife Conference. Lincoln, NE. February. Poster
- Sherman, J. other authors including **Mayer C. M.** February 2017. It Takes a Village: an Overview of Collaborative Efforts for Reintroducing Extirpated Lake Sturgeon (*Acipenser fulvescens*) to the Maumee River, Ohio. IN-OH Chapters of the American Fisheries Society joint meeting.
- Sherman, J., Bossenbroek, J., Crail, T., **Mayer, C.M.** Boase, J., Chiotti, J. Vandergoot, C. 2017. Reintroducing extirpated Lake Sturgeon to the Maumee River, Ohio: an overview of collaborative efforts. Midwest Fish and Wildlife Conference. Lincoln, NE. February.
- Simonson, M.A., **Mayer, C.M.**, Qian, S.S., Arend, K.K., Bossenbroek, J., Weimer, E.J. May 2017. Modeling Nearshore Fish Community Responses to Shoreline Types in Lake Erie. International Association of Great Lakes Research Annual Conference, Detroit MI.
- Simonson, M.A., **Mayer, C.M.**, Qian, S.S., Arend, K.K., Bossenbroek, J., Weimer, E.J. February 2017. Nearshore Fish Community Responses to Shoreline Types in Lake Erie. IN-OH Chapters of the American Fisheries Society joint meeting.
- Williams, N.A., J.L. Fischer, G. Kennedy, T. Wills, D. Jones, E. Acromite, S. Jackson, D. Bennion, **C. Mayer**, and E. Roseman. 2017. Assessing the Physical Maturation of Fish Spawning Reefs on the St. Clair River. Michigan Chapter of the American Fisheries Society. Mackinaw City, MI. PLATFORM
- DuFour M., Qian. S.S., and **Mayer, C.M.** 2017 Hydroacoustic quantification of Lake Erie Walleye (*Sander vitreus*) distribution and abundance. OSU-OH DNR-DOW Research Review. Columbus, OH. February.
- Sherman, J., Bossenbroek, J., Crail, T., **Mayer, C.M.** Boase, J., Chiotti, J. Vandergoot, C. 2017. A reintroduction plan for Lake Sturgeon in the Maumee River. OSU-OH DNR-DOW Research Review. Columbus, OH. February.
- Qian S.S., Yanos C. & **Mayer, C.M.** 2017. A continuous variable Bayesian Networks (cBN) model approach to assessing fish community relationships to productivity gradients in Lake Erie. OSU-OH DNR-DOW Research Review. Columbus, OH. February.
- Embke, H., Richter, C.A., Garcia, T., Kocovsky, P., **Mayer, C. M.**, Qian, S. 2017. Estimating spawning and hatch locations of naturally spawned Grass Carp eggs in a Great Lakes tributary. OSU-OH DNR-DOW Research Review. Columbus, OH. February.
- King, N.R., Hanson, J.L., Kocovsky, P.M, **Mayer, C. M.** and Qian, S.S February 2017. Mapping and monitoring aquatic vegetation in Lake Erie for Grass Carp risk assessment. OSU-OH DNR-DOW Research Review. Columbus, OH. February.

## 2016

- \*\*Simonson, M.A., **Mayer, C.M.**, Qian, S.S., Arend, K.K., Bossenbroek, J., Weimer, E.J. December 2016. Nearshore Fish Community Responses to Shoreline Types in Lake Erie. Coastal Summit (hosted by Restore America's Estuaries and The Coastal Society), New Orleans, LA. (poster)

- \*\*Sherman J., Bossenbroek, J., Crail, T., **Mayer C. M.**, Boase, J., Chiotti, J., and Vandergoot, C. January 2016. A habitat suitability model for possible lake sturgeon (*Acipenser fluvescens*) reintroduction in the Maumee River. Midwest Fish and Wildlife Conference, Grand Rapids MI. (contributed presentation)
- Castle, D., Prichard, C., Roseman, E., Hunter, R., Vandergoot, C., Rogers, M., Hebebrand, K., Keeler, K., Schmidt, B., **Mayer, C.M.**, and Taylor, W. January 2016. Time warp: examination of age-0 Walleye diets reveals foodweb changes in western Lake Erie between 1990s and 2014. Midwest Fish and Wildlife Conference, Grand Rapids MI. (contributed presentation)
- \*\*Schmidt, B., **Mayer, C.M.**, Roseman, E., and Stott, W. January 2016. Unforeseen barrier limits spawning habitat availability in the Maumee River. Midwest Fish and Wildlife Conference, Grand Rapids MI. (contributed presentation)
- Ross J., Roseman, E., Pritt, J., DeBruyne, R., Fischer, J., \*\*DuFour, M., Kraus, R., Mayer, C.M., and Tyson, J. January 2016. Spatial and temporal patterns of age-0 fish in Western Lake Erie aid understanding of individual spawning group production. Midwest Fish and Wildlife Conference, Grand Rapids MI. (poster)
- \*\*Embke, H., Kocovsky, P., **Mayer, C. M.**, Qian, S., and Richter, C. January 2016. Evidence of grass carp spawning in a Lake Erie tributary. Midwest Fish and Wildlife Conference, Grand Rapids MI. (poster)
- Bunell, D.B., five authors and **Mayer, C.M.** June 2016. Does proximity to high-loading tributaries enhance production in Lake Michigan? International Association of Great Lakes Research Annual Conference, Guelph Ontario.
- \*\*DuFour, M.R., **Mayer, C.M.** and five authors. June 2016. Hydroacoustic abundance estimates and Walleye (*Sander vitreus*) avoidance behavior: a tale of two ships. International Association of Great Lakes Research Annual Conference, Guelph Ontario.
- \*\*Embke, H.S., four authors and **Mayer, C.M.** June 2016. Assessing spawning locations of naturally spawned grass carp eggs in a Great Lakes Tributary. June 2016. International Association of Great Lakes Research Annual Conference, Guelph Ontario.
- \*\*Fischer, J.L., five authors and **Mayer, C.M.** June 2016. Getting physical: guiding habitat restoration with velocity and substrate mapping. International Association of Great Lakes Research Annual Conference, Guelph Ontario.
- Nowicki, C.J., six authors and **Mayer, C.M.** June 2016. To eat or be eaten? The ups and downs of zooplankton diel vertical migration in Lake Huron. International Association of Great Lakes Research Annual Conference, Guelph Ontario.
- \*\*Sherman, J.J., five authors and **Mayer, C.M.** June 2016. A habitat suitability model for possible lake sturgeon reintroduction in the Maumee River. International Association of Great Lakes Research Annual Conference, Guelph Ontario.
- \*\*Simonson, M.A., three authors and **Mayer, C.M.** June 2016. Identifying relationships between the Lake Erie coastline and the nearshore fish community. International Association of Great Lakes Research Annual Conference, Guelph Ontario.
- \*\*Yanos, C.L. three authors and **Mayer, C.M.** June 2016. Evaluating importance of nutrient and productivity gradients on Lake Erie fish-community structure. Nutrient gradients drive productivity. International Association of Great Lakes Research Annual Conference, Guelph Ontario.

2015

- **\*\*Andrews, R. A., DuFour, M.R., Mayer, C.M., and Qian, S.S.** May 2015. Do Lake Erie walleye conform to an ideal free distribution? International Association of Great Lakes Research Annual Conference, Burlington, Vermont. (contributed presentation)
- **\*\*DuFour, M.R., Mayer, C.M., Qian, S.S., Warner, D.M., Kocovsky, P.M., Vandergoot, C.S. and Andrews, R.M.** February 2015. Echo-counting in shallow water: balancing quantity and quality of *in situ* TS data. Midwest Fish and Wildlife Conference, Indianapolis, IN. (poster)
- **\*\*Andrews, R.M., \*\*DuFour, M.R., Mayer, C.M. and Qian, S.S.** February 2015. Do Lake Erie Walleye (*Sander vitreus*) conform to an Ideal Free Distribution? Midwest Fish and Wildlife Conference, Indianapolis, IN. (poster) 2014
- **\*\*DuFour, M.R., May, C.J., Pritt, J.J., Roseman, E.F., Mayer, C.M., Ludsin, S.A., Marschall, E.A., Faker, M.E., Davis, J.J., Miner, J.G., Qian, S.S., Vandergoot, C.S., and Tyson, J.T.** August 2014. Diversity in a multi-stock system: Temporal and spatial portfolio effects in Lake Erie Walleye production. American Fisheries Society annual meeting, Quebec City, QB.
- **Ross, J., Roseman, E.F., DeBruyne, R., Kraus, R., Mayer, C.M., Pritt, J.J., DuFour, M., Tyson, J., and Vandergoot, C.S.** August 2014. Spatial and temporal patterns in trawl survey catches reflect stock-specific dispersal of age-0 fishes and individual spawning stock production in Lake Erie. American Fisheries Society annual meeting, Quebec City, QB.
- **Burlakova, L.E., Karatayev, A.Y., Pennuto, C.M., and Mayer, C.M.** May 2014. Changes in Lake Erie benthos over the last 50 years: Historical perspectives, current status, and main drivers. International Association for Great Lakes Research, Hamilton, ON.
- **DuFour, M.R., Qian, S.S., Mayer, C.M., Vandergoot, C.S., Tyson, J.T., Kocovsky, P.M., Kraus, R.T., and Warner, D.M.** May 2014. Coupling hydroacoustic and gill net surveys: Getting by with a little help from my Bayesian friends. International Association for Great Lakes Research, Hamilton, ON.
- **DuFour, M.R., May, C.J., Pritt, J.J., Roseman, E.F., Mayer, C.M., Ludsin, S.A., Marschall, E.A., Faker, M.E., Davis, J.J., Miner, J.G., Qian S.S., Vandergoot, C.S., and Tyson, J.T.** May 2014. Diversity in a multi-stock system: Temporal and spatial portfolio effects in Lake Erie Walleye production. International Association for Great Lakes Research, Hamilton, ON.
- **Perez-Fuentataja, A., Clapsadl, M.D., Pennuto, C.M., and Mayer, C.M.** May 2014. Inter-annual dynamics of zooplankton and nutrient regimes in Lake Erie. International Association for Great Lakes Research, Hamilton, ON.

### 2013

- **Fraker, M.E., DeVanna, K.M., Anderson, E.J., Chen, K.Y., Davis, J.J., \*\*DuFour, M.R., Marshall, E.A., May, C.J., Mayer, C.M., Miner, J.G., \*\*Pritt, J.J., Roseman, E.F., Pangle, K.L., Tyson, J.T., Zhou, Y., and Ludsin, S.A.** June 2013. Coupled physical-biological modeling as a tool to enhance our understanding of the recruitment process in mixed-stock fisheries: An example with Lake Erie Walleye. International Association for Great Lakes Research, West Lafayette, IN.
- **\*\*Kuhaneck, R.M., Mayer, C.M., and Bridgeman, T.B.** June 2013. Vegetation on ripraped shorelines: Implications for management of invertebrate communities and restoration of nearshore areas. International Association for Great Lakes Research, West Lafayette, IN.

- **\*\*Pritt, J.J., \*\*DuFour, M.R., Mayer, C.M., Kocovsky, P.M., Tyson, J.T., Weimer, E.J., Vandergoot, C.S., and Stow, C.A.** June 2013. Abundance and ecology across life stages: Walleye reproduction in the Maumee River. International Association for Great Lakes Research, West Lafayette, IN.
- **\*\*Ross, J.E., Mayer, C.M., Tyson, J.T., and Weimer, E.J.** June 2013. Impacts of shoreline alteration on nearshore fish communities: A reduction in community complexity and habitat use. International Association for Great Lakes Research, West Lafayette, IN.

## 2012

- **\*\*Pritt, J. and Mayer, C. M.** August 2012. Fish migration as an ecosystem linkage between western Lake Erie and a major tributary. American Fisheries Society annual meeting, St. Paul, MN.
- **\*\*Ross, J., Mayer, C.M., Tyson, J., and Weimer, E.** August 2012. Designing a monitoring program for Ohio's Lake Erie Shoreline Fish Community: The first step in a long-term data series. American Fisheries Society annual meeting, St. Paul, MN.
- **\*\*DuFour, M. R., \*\* Pritt, J.J., Mayer, C.M., Stow, C., Tyson, J., Weimer, E. and Kocovsky, P.M.** August 2012. Quantification of abundance and mortality of Maumee River larval walleye (*Sander vitreus*). American Fisheries Society annual meeting, St. Paul, MN.
- **\*\*Manning N., Mayer, C.M., Bossenbroek, J., Bunnell, B., and Tyson J.** August 2012. Use of IBMs to explore the effects of turbidity on the growth & survival of Yellow Perch. American Fisheries Society annual meeting, St. Paul, MN.
- **\*Mapes, R.L., \*\*Dufour, M., \*\* Pritt, J., and Mayer, C.M.** January 2012. Changes in the larval fish community of the Maumee River estuary. Midwest Student Fisheries Colloquium, Champaign-Urbana, IL.
- **\*\*DuFour, M.R., \*\*Pritt, J., Mayer, C.M., Kocovsky, P., Stow, C., Tyson, J., and Weimer E.** January 2012. Estimating larval walleye abundance on the Maumee River. Midwest Student Fisheries Colloquium, Champaign-Urbana, IL.
- **\*\*DuFour, M.R., \*\* Pritt, J., Mayer, C.M., Stow, C., Tyson, J., Weimer, E., and Kocovsky, P.** March 2012. Maumee River larval walleye dynamics: Production, mortality and export. Midwest Graduate Research Symposium, Toledo, OH.
- **\*Doerr, A., \*\*Ross, J., and Mayer, C.M.** Tributary Impacts on the western Lake Erie shoreline fish community. Ohio Academy of Science.
- **\*Woodling, K., \*\* Ross, J., and Mayer, C.M.** Shoreline recovery and the nearshore fish community. Ohio Academy of Science.
- **\*Mapes, R.L., \*\*Dufour, M., \*\*Pritt, J., and Mayer, C.M.** Changes in the larval fish community of the Maumee River estuary. Ohio Academy of Science.

## 2011

- **Manning, N., Bossenbroek, J., Mayer, C.M., and Tyson, J.** May 2011. Use of Individual Based Models to explore the effects of turbidity on early life history traits of Yellow Perch (*Perca flavescens*). International Association for Great Lakes Research, Duluth, MN.
- **DuFour, M.R., Pritt, J.J., Mayer, C. M., Tyson, J.T., Weimer, E.J., Kocovsky, P.M., and Stow, C.A.** May 2011. Estimating larval fish export from the Maumee River: Tracking variability through space and time. International Association for Great Lakes Research, Duluth, MN.
- **DeVanna, K.M., Mayer, C.M., and Schloesser, D.W.** May 2011. Scale-dependent effects of soft-sediment *Dreissena* druses on *Hexagenia* in western Lake Erie. International Association for Great Lakes Research, Duluth, MN.

## 2010

- Armenio, P. and **Mayer, C.** Nutrient contributions from Dreissena to the benthic cyanobacterium *Lyngbya wollei*. International Association for Great Lakes Research, Toronto, Canada.
- Armenio, P. and **Mayer, C.** Nutrient contributions from Dreissena to the benthic cyanobacterium *Lyngbya wollei*. American Phycological Association, Toronto, Canada.
- Manning, N., Bossenbroek, J., and **Mayer, C.** Use of Individual Based Models to explore the effects of turbidity on early life history traits of Yellow Perch (*Perca flavescens*). International Association for Great Lakes Research, Toronto, Canada. (poster)
- DeVanna, K.M., **Mayer, C.M.**, \*\*Jain, N., and Schloesser, D.W. April 2010. Mapping the spatial relationship of burrowing mayflies and dreissenid mussels in western Lake Erie. Lake Erie Millennium Network Biannual Conference, Windsor, ON, Canada. (poster)
- Manning, N., Bossenbroek, J., and **Mayer, C.** September 2010. Use of Individual Based Models to explore the effects of turbidity on early life history traits of Yellow Perch (*Perca flavescens*), American Fisheries Society, Pittsburg, PA.
- DeVanna, K.M., **Mayer, C.M.**, and Schloesser, D.W. September 2010. When bugs are hard to find. American Fisheries Society, Pittsburgh, PA. (oral presentation)
- **Mayer, C.**, Manning, N., Bossenbroek, J., Wellington, C., Bridgeman, T.B. and Tyson, J. September 2010. Experimental and spatial modeling of environmental factors affecting foraging success of age-0 Yellow Perch. American Fisheries Society, Pittsburg, PA.

#### 2009

- \*\*Armenio P.M., \*\*DeVanna, K.M., and **Mayer C.M.** Do zebra mussels and low oxygen affect the behavior and predation risk of *Hexagenia*? University of Toledo chapter of Sigma Xi annual conference, Toledo, OH.
- \*\*Manning, N.F., **Mayer C.M.**, Bossenbroek, J., Bridgeman, T.B. and Tyson, J. Effects of environmental variables on year-0 Yellow Perch growth and abundance. University of Toledo chapter of Sigma Xi annual conference. Toledo, OH.
- \*\*DeVanna, K.M., Bodamer, B.L., Hammer, E., Wellington, C.G., Bossenbroek, J.M., and **Mayer, C.M.** An alternative hypothesis for invasional meltdown: General facilitation by *Dreissena*. International Conference on Aquatic Invasive Species, Montreal, Quebec, Canada.
- \*\*DeVanna, K.M., \*\*Cope (Armenio), P.M., and **Mayer, C.M.** Biotic and abiotic habitat interactions determine predation risk for burrowing mayflies. International Association for Great Lakes Research, Toledo, OH.
- Jain, N., \*\*DeVanna, K.M., **Mayer, C.M.**, and Schloesser, D.W. Mapping the spatial relationship of burrowing mayflies and dreissenid mussels in western Lake Erie. International Association for Great Lakes Research, Toledo, OH.
- Limburg, K.E., **Mayer, C. M.**, Luzadis, V.A., Ramsey, M., and Schulz K.L. The good, the bad, and the algae: perceiving ecosystem services and disservices generated by zebra and quagga mussels. International Association for Great Lakes Research, Toledo, OH.
- \*\*Manning, N.F., **Mayer, C.M.**, Bossenbroek, J., Bridgeman, T.B. and Tyson, J. Effects of environmental variables on year-0 Yellow Perch growth and abundance. International Association for Great Lakes Research, Toledo, OH.
- \*\*Manning, N.F., **Mayer, C.M.**, Bossenbroek, J., Bridgeman, T.B. and Tyson, J. Effects of environmental variables on year-0 Yellow Perch growth and abundance. Midwest Fish and Wildlife Meeting, Columbus, OH.

#### 2008

- **\*\*DeVanna, K.M. and Mayer, C.M.** May 2008. *Hexagenia* habitat choice: Effects of hypoxia and fish foraging. International Association for Great Lakes Research, Trent University, Peterborough, ON. (oral presentation)
- **\*\*Wellington, C.G., Mayer, C.M., and Bossenbroek, J.M.** May 2008. Physical and biological factors affecting foraging success of age-0 Yellow Perch. International Association for Great Lakes Research, Trent University, Peterborough, ON.
- **Zhu, B., Halfman, J.D., Mayer, C.M., Rudstam, L.G. and Mills, E.L.** May 2008. Local and lake-wide effects of dreissenids on nitrogen and phosphorus cycling in lakes. International Association for Great Lakes Research, Trent University, Peterborough, ON.
- **DeVanna K.M. and Mayer, C.M.,** Impacts of hypoxia and fish predation on *Hexagenia* use of *Dreissena*-colonized habitat. Lake Erie Millennium Network Biannual Conference, Windsor, Ontario, Canada. (poster)
- **Bodamer, B.L., \*\*DeVanna, K.M., \*\*Wellington, C.G., Hammer, E., Bossenbroek, J.M., and Mayer, C.M.** An alternative hypothesis for invasional meltdown: General facilitation by *Dreissena*. Lake Erie Millennium Network Biannual Conference, Windsor, Ontario, Canada. (poster)
- **\*\*Wellington, C.G, Mayer, C.M., and Bossenbroek, J.M.** Physical and biological factors affecting foraging success of age-0 Yellow Perch. Lake Erie Millennium Network Biannual Conference, Windsor, Ontario, Canada. (poster)
- **Bossenbroek, J.M., Bodamer, B., DeVanna, K., Hammer, E., Wellington, C, and Mayer, C.M.** An alternative hypothesis for invasional meltdown in the Great Lakes: General facilitation by *Dreissena*. Ecological Society of America.

#### 2007

- **\*\*DeVanna, K.M., Mayer, C.M., \*Barrett, C.A.** May 2007. Role of *Dreissena* as ecosystem engineers: Effects on native bioturbators and benthic communities. International Association for Great Lakes Research Annual Meeting, State College, PA.
- **\*\*DeVanna, K.M., Bodamer, B., Hammer, H., Wellington, C., Bossenbroek, J.M., and Mayer, C.M.** An alternative hypothesis for Invasional Meltdown: General facilitation by *Dreissena*. Sigma Xi, Toledo, OH. **Honorable mention, best poster**
- **\*\*DeVanna, K.M., Mayer, C.M., \*Barrett, C.A.** Role of *Dreissena* as ecosystem engineers: Effects on native bioturbators and benthic communities. Sigma Xi., Toledo, OH. **Honorable mention, best talk**

#### 2006

- **\*\*Elkington, B. and Mayer, C.M.** May 2006. The effects of turbidity quality and quantity on zooplankton consumption by young of year Yellow Perch (*Perca flavescens*). International Association for Great Lakes Research annual meeting, Windsor, ON.
- **\*\*Qin, P., Mayer, C.M., Schulz, K.L, and Ji, X.** May 2006. Phosphorus abatement and *Dreissena* filtration: Effects on production and stoichiometry in benthic ecosystems. International Association for Great Lakes Research annual meeting, Windsor, ON.
- **\*\*Devanna, K.M., Mayer, C.M., Barrett, C., and Lohner, R.N.** May 2016. Effects of *Dreissena* on native bioturbators: benthic ecosystem function and community composition. International Association for Great Lakes Research annual meeting, Windsor, ON.
- **Mayer, C.M., Lohner, R.L., Qin, P., Schulz, K.L., and Ji, X.** May 2016. *Dreissena* effects on benthic primary producers, measured by pulse amplitude modulated fluorometry. International Association for Great Lakes Research annual meeting, Windsor, ON.

- Bridgeman, T.B., **Mayer, C.M.**, Schloesser, D.W., Devanna, K.M., Lohner R.L., and Sabo, K. Demand of western Lake Erie sediments and benthos: A methods comparison. International Association for Great Lakes Research annual meeting, Windsor, ON.
- Schulz, K.L., **Mayer, C.M.**, Ji, X., and Qin, P. Stoichiometric and ecosystem effects of phosphorus abatement and bivalve filtration: An experimental test. International Association for Great Lakes Research annual meeting, Windsor, ON.
- Ji, X., Schulz, K., Qin, P., and **Mayer, C.M.** Phosphorus abatement and *Dreissena* filtration effects on production and stoichiometry in pelagic ecosystems. International Association for Great Lakes Research annual meeting, Windsor, ON.
- \*\*Qin, P., **Mayer, C.M.**, Schulz, K.L., and Ji, X. Phosphorus abatement and *Dreissena* filtration: Effects on production and stoichiometry in benthic ecosystems. Great Lakes Research Consortium, Lake Placid, NY.
- **Mayer, C.M.** and Elkington, B. The effects of turbidity quality and quantity on zooplankton consumption by young of year Yellow Perch. American Fisheries Society annual meeting, Lake Placid, NY.
- **Mayer, C.M. et al.** Habitat changes: Zebra mussels, ecosystem engineering and the benthic connection. American Fisheries Society annual meeting, Lake Placid, NY.
- \*\*Zhu B., Fitzgerald, D.G., Hoskins, S.B., Rudstam, L.G., **Mayer, C.M.**, and Mills, E.L. Quantification of response of submerged aquatic vegetation to changes in water clarity in two bays of Lake Ontario, American Fisheries Society annual meeting, Lake Placid, NY.
- \*\*DeVanna K.M., **Mayer, C.M.**, \*Barrett, C.A. May 2006. Role of *Dreissena* as ecosystem engineers: Effects on native bioturbators and benthic communities. American Fisheries Society joint chapter meeting: OH, IN, MI, State College, PA.
- Schulz, K.L., **Mayer, C.M.**, Ji, X., and Qin, P. Stoichiometric and ecosystem effects of phosphorus abatement and bivalve filtration. American Society of Limnology and Oceanography Summer Meeting.
- Schulz, K.L., Storch, A.J., **Mayer, C.**, Cáceres, C.E., Teece, M.A., Ji, X. and Qin, P. Effects of exotic species on flows of energy and materials in aquatic systems. Gordon Research Conference on the Metabolic Basis of Ecology.

## 2005

- Lohner, R.N., \*\*Balogh, C., Sigler, V., and **Mayer, C.M.** Effects of *Dreissena* clusters on the benthic microbial community of lakes. International Association for Great Lakes Research annual meeting.
- **Mayer, C.M.**, Lohner, R.N., Heckathorn, S.A. and Bridgeman, T.B. Benthic primary production in Maumee Bay, western Lake Erie: Green lake, brown bottom. International Association for Great Lakes Research annual meeting.
- \*\*Qin, P., **Mayer, C.M.**, Schulz, K.L., Ji, X. and Ritchie, M. Phosphorus abatement and *Dreissena* filtration: Effects on periphyton production and stoichiometry in lakes. International Association for Great Lakes Research annual meeting.
- Ji, X., Schulz, K.L., Qin, P., and **Mayer, C. M.** Synergistic effects of phosphorus abatement and *Dreissena* filtration on ecosystem primary production and algal stoichiometry. American Society of Limnology and Oceanography annual meeting.
- **Mayer, C.M.**, Johnson, R., Lohner, R.L., Rudstam, L., Mills, E., Bridgeman, T., and Heckathorn, S. Biological and physical factors affecting benthification in lakes. American Society of Limnology and Oceanography annual meeting.

- **\*\*Qin, P., Mayer, C.M., Schulz, K.L., Ji, X., Ritchie, M.** Phosphorus abatement and *Dreissena* filtration: effects on periphyton production and stoichiometry in lakes? American Society of Limnology and Oceanography annual meeting. **\*\*Winner, outstanding student poster.**
- **\*\*Qin, P., Mayer, C.M., Schulz, K.L., Ji, X., Ritchie, M.** Phosphorus abatement and *Dreissena* filtration: Effects on periphyton production and stoichiometry in lakes. Great Lakes Research Consortium annual meeting.
- Schulz, K.L., **Mayer, C.M., Ji, X., and Qin, P.** Low P and High F: Testing for stoichiometric and ecosystem effects of phosphorus abatement and bivalve filtration. Ecological Society of America annual meeting.

#### 2004

- **\*\*Johnson, R., Mayer, C., Mills, E., Schulz, K.** Effect of increased water clarity due to zebra mussels on benthic algal primary production in Oneida Lake. International Association for Great Lakes Research annual meeting.
- **\*\*Zhu, B., Fitzgerald, E., Hoskin, S., Rudstam, L., Mayer, C., and Mills, E.** Quantification of the changes in the distribution of submerged aquatic vegetation in bays of Lake Ontario, 1972-2002. International Association for Great Lakes Research annual meeting.

#### 2003

- **Mayer C., Zhu, B., Fitzgerald, D., Mills, E., and Rudstam, L.** 2003. Zebra mussels: benthic ecosystem engineers. American Fisheries Society annual meeting,
- **\*\* Zhu, B., Seifried, K., Fitzgerald, D., Mayer, C., Mills, E., and Rudstam, L.** 2003. Submerged Aquatic Vegetation (SAV) as an important factor in the progression of benthification of Oneida Lake and Bay of Quinte, Lake Ontario. International Association for Great Lakes Research annual meeting.
- **Mayer, C., Minns, K., Millard, S., Seifried, K., Bernard, A., Zhu, B.** Estimating long-term changes in the levels and sources of primary production in Oneida Lake and the Bay of Quinte. International Association for Great Lakes Research annual meeting.

#### 2002

- **Mayer, C.M., Tisch, N., Haynes, J., Philippon, J., and Heckathorn, S.A.** *Echinogammarus ischnus*, the next exotic threat? North American Benthological Society annual meeting.

#### 2001

- **Mayer, C.M., Tisch, N., Heckathorn, S.A., Lynch, N., Philippon, J., Higgins, M., and Langton, N.** *Echinogammarus ischnus*, the next exotic threat? New York State Chapter of the American Fisheries Society.
- Lynch, N., Philippon, J., **Mayer, C.,** and Tisch N. Habitat preference and spatial distribution of *Echinogammarus ischnus* and *Gammarus fasciatus*. Great Lakes Research Consortium.
- Mills, E. L., Idrisi, N., **Mayer, C.,** Rudstam, L.G., and Stewart, D.J. Impact of zebra mussels (*Dreissena polymorpha*) on the food web of Oneida Lake, New York. American Society of Lake Management annual meeting.

#### 2000

- Hershey, A.E., Gettel, G., Lienesch, P.W., McDonald, M.E., **Mayer, C.M.,** Mooers, H., O'Brien, W.J., Richards, C., Schuldt, J., and Wilson, A.I. Fish-benthic interactions in arctic lakes: top-down control of food webs is constrained by landscape criteria. North American Benthological Society annual meeting.
- **Mayer, C.M.,** Heckathorn, S.A., Bothwell, M.L., Ulseth, A., and Hershey, A.E. Biochemical response of arctic benthos to UV radiation. North American Benthological Society annual meeting.

1998 **Mayer, C.M.**, Mills, E.L., and Rudstam, L.G.. International Association of Great Lakes Research

1997

- **C.M. Mayer**, N. Idrissi, E.L. Mills, and L.G. Rudstam. New York State Chapter of the American Fisheries Society,
- Great Lakes Research Consortium, S.G. Cardiff, **C.M. Mayer**, L.G. Rudstam, and E.L. Mills.
- American Society of Limnology and Oceanography, L.G. Rudstam, **C.M. Mayer**, N. Idrissi, and E.L. Mills.
- International Association of Great Lakes Research, **C.M. Mayer**, N. Idrissi, E.L. Mills, and L.G. Rudstam.
- American Fisheries Society annual meeting, **C.M. Mayer**, N. Idrissi, E.L. Mills, and L.G. Rudstam.

1996

- Great Lakes Research Consortium, **C.M. Mayer**, R.A. Keats, E.L. Mills, and L.G. Rudstam.
- Great Lakes Research Consortium, C.M. Post, **C.M. Mayer**, E.L. Mills, and L.G. Rudstam.
- Ecological Society of America, **C.M. Mayer**, L.G. Rudstam, and E.L. Mills.

1995 NY State Chapter of the American Fisheries Society, **C.M. Mayer** and D.H. Wahl.

1994 Ecological Society of America, **C.M. Mayer** and D.H. Wahl.

1993 American Fisheries Society annual meeting, **C.M. Mayer** and D.H. Wahl.

\*\* Indicates graduate advisee or research technician under my direct supervision

\* Indicates undergraduate student

## **INVITED PRESENTATIONS**

2016

- \*\*Sherman J., Bossenbroek, J., Crail, T., **Mayer, C.M.**, Boase, J., Chiotti, J., and Vandergoot, C. January 2016. A habitat suitability model for possible lake sturgeon (*Acipenser fluvescens*) reintroduction in the Maumee River. Ohio State University- OH DNR Division of Wildlife Research Review.
- \*\*Schmidt, B., **Mayer, C.M.**, Roseman, E., Stott, W. January 2016. Unforeseen barrier limits spawning habitat availability in the Maumee River. Ohio State University- OH DNR Division of Wildlife, Research Review.
- \*\*Embke, H., Kocovsky, P., **Mayer, C.**, Qian, S., Richter, C. January 2016. *Evidence of grass carp spawning in a Lake Erie tributary*. Ohio State University- OH DNR Division of Wildlife Research Review.

2015

- \*\*DuFour, M.R., **Mayer, C.M.**, and Qian, S.S. January 2015. Accounting for uncertainty in acoustic estimates of walleye abundance. Ohio State University- OH DNR Division of Wildlife Research Review. Oral presentation.
- \*\*Andrews, R.M., \*\*DuFour, M.R., **Mayer, C.M.**, and Qian, S.S. January 2015. Do Lake Erie walleye (*Sander vitreus*) conform to an Ideal Free Distribution? Ohio State University- OH DNR Division of Wildlife Research Review.

2014

- DuFour, M. et al. Efficacy of coupling hydroacoustic and gill net sampling to assess distribution and abundance of Lake Erie walleye. Ohio State University- OH DNR Division of Wildlife Research Review.

- DuFour, M. et al. Diversity in a multi-stock system: temporal and spatial portfolio effects in Lake Erie walleye production. Ohio State University- OH DNR Division of Wildlife Research Review.
- **Mayer, C.M.**, **\*\*Manning, N.**, **\*\* Wellington, C.**, Bossenbroek, J., Tyson, J. June 2014. A tale of two turbidities: Yellow Perch in murky waters. Cornell Biological Field Station. Illinois Natural History Survey, Kaskaskia Biological Field Station, Sullivan, IL.

### 2013

- **\*\*Manning N.**, Bossenbroek, J., Becker, R., **Mayer, C.M.**, and Tyson, J.T. Urbanization and climate effects on age-0 Yellow Perch growth in Maumee Bay. Ohio State University- OH DNR Division of Wildlife Research Review.
- **\*\*Pritt, J.J.**, **\*\*DuFour, M.R.**, **Mayer, C.M.**, Kocovsky, P., Tyson, J., Weimer E., and Stow, C. Temporal variability in adult walleye migration and larval walleye production in the Maumee River. Ohio State University- OH DNR Division of Wildlife Research Review.
- **\*\*Ross, J.**, **Mayer, C.M.**, and Tyson, J. Shoreline effects on the fish community of Lake Erie. Ohio State University- OH DNR Division of Wildlife Research Review.
- **\*\*Ross, J.**, **Mayer, C.M.**, and Tyson, J. Shoreline effects on the fish community of Lake Erie. Ohio State University- OH DNR Division of Wildlife Research Review.
- **Mayer, C.M.**, **\*\*Ross, J.**, and Tyson, J. May 2013. Shoreline effects on the fish community of Lake Erie. State of Ohio Coastal Resources Advisory Committee, Avon OH.
- **\*\*Ross, J.**, **Mayer, C.M.**, and Tyson, J. July 2013. Shoreline effects on the fish community of Lake Erie. Ohio EPA-Surface Water Group, Bowling Green OH.
- **Mayer, C.M.**, **\*\* Manning, N.**, **\*\*Wellington, C.**, Bossenbroek, J., and Tyson, J. A tale of two turbidities: Yellow Perch in murky waters. Cornell Biological Field Station, Bridgeport, NY.

### 2012

- **Mayer, C.M.**, DuFour, M.R., Pritt, J., Stow, C., Tyson, J., Weimer, E., and Kocovsky, P. March 2012. Effects of the Bay Shore Power Plant on Ecosystem Function. Bowling Green State University, SetGo Program, Bowling Green, OH.
- **\*\*DuFour, M.R.**, **\*\*Pritt, J.**, **Mayer, C.M.**, Stow, C., Tyson, J., Weimer, E., and Kocovsky, P. March 2012. Quantification of abundance and mortality of Maumee River larval walleye: accounting for variability and uncertainty. USGS Great Lakes Science Center Brown Bag Seminar, Ann Arbor, MI.
- **Mayer, C.M.**, DuFour, M.R., Pritt, J., Stow, C., Tyson, J., Weimer, E., and Kocovsky, P. January 2012. Effects of the Bay Shore Power Plant on ecosystem function. Wayne State University, Department of Biology, Detroit, MI.
- **\*\*DuFour, M.R.**, **\*\*Pritt, J.**, **Mayer, C.M.**, Kocovsky, P., Stow, C., Tyson J., and Weimer, E. January 2012. Maumee River larval walleye dynamics: Production, mortality and export. Ohio State University- OH DNR Division of Wildlife Research Review.
- **\*\*Ross, J.**, **Mayer, C.M.**, Tyson, J., Weimer, E. February 2012. Monitoring Ohio's Lake Erie Shoreline Fish Community. Ohio State University- OH DNR Division of Wildlife Research Review.
- **\*\*Pritt, J.J.**, **\*\*DuFour, M.R.**, **Mayer, C.M.**, Kocovsky, P., Tyson, J., and Weimer, E. February 2012. Walleye spawning stock size and migration cues in the Maumee River. Walleye Task Group Annual Meeting, Huron, OH.

### 2011

- **Mayer, C.M.**, DuFour, M.R., Pritt, J., Stow, C., Tyson, J., Weimer, E., and Kocovsky, P. Nov 2011. Effects of the Bay Shore Power Plant on ecosystem function. Case Western University, Department of Biology, Cleveland, OH.
- \*\*DuFour, M.R., \*\* Pritt, J., **Mayer, C.M.**, Kocovsky, P., Stow, C., Tyson, J., and Weimer, E. April 2011. Maumee Bay ecosystem function: Effects of the Bayshore power plant and other environmental variables. Lake Erie Waterkeeper Conference, North Cape Yacht Club, La Salle, MI.
- DuFour, M.R., Pritt, J.J., **Mayer, C.M.**, Tyson, J.T., Weimer, E.J., Kocovsky, P.M., Stow, C.A. January 2011. Estimating larval fish export from the Maumee River: tracking variability through space and time. Ohio State University, Aquatic Ecology Laboratory Research Review, Columbus, OH.

#### 2008

- **C.M. Mayer**. The benthification of freshwater lakes: Exotics turning ecosystems upside down. Michigan DNR, Fisheries Research Group.

#### 2007

- **C.M. Mayer** The benthification of freshwater lakes: Exotics turning ecosystems upside down. United States Geological Survey, Great Lakes Science Center.
- Wellington, C., **Mayer, C.M.** and Bossenbroek, J.M. Physical and biological factors affecting foraging success of age-0 Yellow Perch. Ohio State University, Aquatic Ecology Laboratory Research Review.

#### 2006

- **Mayer, C.M.** and Elkington, B. The effects of turbidity quality and quantity on zooplankton consumption by young of year Yellow Perch (*Perca flavescens*). Ohio State University, Aquatic Ecology Laboratory Research Review.
- **Mayer, C.M.** and Elkington, B. The effects of turbidity quality and quantity on zooplankton consumption by young of year Yellow Perch (*Perca flavescens*). Ohio Department of Natural Resources annual meeting.
- **Mayer, C.M.** Habitat changes: zebra mussels, ecosystem engineering and the benthic connection American Fisheries Society annual meeting.
- **C.M. Mayer** The benthification of freshwater lakes: Exotics turning ecosystems upside down. Cleveland State University.

#### 2005

- **Mayer, C.M.** The benthification of freshwater lakes: Exotics turning ecosystems upside down. Ohio State University Aquatic Ecology Laboratory Research Review.

#### 2004

- **Mayer, C.M.** January 2004. The benthification of freshwater lakes: Exotics turning ecosystems upside down. Bowling Green State University, Department of Biological Sciences.
- **Mayer, C.M.** March 2004. The benthification of freshwater lakes: Exotics turning ecosystems upside down. Central Michigan University, Department of Biology.

#### 2003

- **Mayer, C.M.** The benthification of freshwater lakes: Exotics turning ecosystems upside down. NOAA Great Lakes Research Laboratory, Ann Arbor MI.

#### 2002

- **C.M. Mayer** Potential benthic foodweb links for transfer of avian botulism. Workshop on avian botulism in Lake Erie, SUNY Fredonia.

- Zebra mussels: exotic benthic ecosystem engineers. University of Toledo, Department of Earth, Ecological, and Environmental Sciences, Toledo OH.

#### 2000

- A test of the geomorphic-trophic hypothesis: how do landscape and fish community control benthic invertebrate assemblages in arctic lakes? Cornell Department of Natural Resources, Ithaca, NY.
- A test of the geomorphic-trophic hypothesis: how do landscape and fish community control benthic invertebrate assemblages in arctic lakes? Clarkson University, Potsdam NY.

- 1999 Response of Yellow Perch (*Perca flavescens*) and benthic invertebrates to the introduction of zebra mussels (*Dreissena polymorpha*) in Oneida Lake, NY. South Carolina Department of Natural Resources, Charleston, SC.

### **TEACHING SUPPORT**

2001 Syracuse University Vision Fund (\$20,000) to C. Mayer and G. Seltzer for support and equipment purchases for Field and Laboratory Experience in Environmental Science (Bio/Gol 400, Fall 2001)

### **AWARDS**

- 2015 University of Toledo College of Natural Sciences and Mathematics Excellence in Research
- 2001 New York State Chapter of the American Fisheries Society, best professional poster
- 1998 International Association of Great Lakes Research annual meeting, best student paper
- 1998 New York Sea Grant thesis completion award
- 1997 New York State Chapter of the American Fisheries Society, best student paper
- 1997 Skinner travel award for attendance of American Fisheries Society annual meeting
- 1995 New York State Chapter of the American Fisheries Society, best student paper
- 1994-1998 New York Sea Grant Scholarship

### **TEACHING**

#### Courses

#### **University of Toledo**

- Data Analysis in Aquatic Ecology (4990/6990) This course is a student-centered problems course in which each student presented an issue relevant to his or her own research. I assigned readings and assignments to the class to help guide each student through the steps needed to understand their specific question.
- Human Ecology and Down to Earth Environmental Sciences (1130) This is a non-major undergraduate course that applies basic ecological concepts to human dominated ecosystems. Enrollment ~90-150.
- Ecology of Freshwater Invertebrates (4720/5720). This course addresses concepts in ecology as they relate to freshwater invertebrates. We covered all levels of ecological organization, from the individual to the ecosystem. Mixed graduate and advanced undergraduates
- Biostatistics (6400/8400) This is an introductory course for graduate students that covers basic statistical techniques needed for biological and environmental science research such as t-test, ANOVA, correlation and regression.

- Great Lakes Ecology (4990/6990/8990) This is a research oriented class for graduate students. Students: 1) reviewed papers 2) reviewed research proposals 3) presented a proposal of their own research 4) presented a data set or manuscript that is part of their own research.
- Aquatic Ecology (4730/5730/7730) Is a team-taught undergraduate and graduate course covering the structure and function of freshwater ecosystems with an emphasis on ecological concepts and applications.
- Invasion Biology and Risk Assessment (4990/6990/8990) This team-taught course (with Bossenbroek) for graduate and advanced undergraduates focused on risk assessment techniques relevant to species introductions. Students generated a hypothesis about the importance of a particular factor in affecting the trajectory of invasions and used published literature to support their hypothesis. A manuscript based on this group project is being prepared for submission to “Biological Invasions”. The first author is a PhD. student from the course.
- Confronting Models with Data (4990/6990/8990) This team-taught course (with Bossenbroek) for graduate students focused on quantitative methods for model evaluation. Students developed a model to evaluate the importance of multiple factors in determining the likelihood of zebra mussel infestation in a series of lakes.
- Bioeconomics of Invasive Species (4990/6990/8990) This team-taught course (with Bossenbroek) for graduate and undergraduate students focused on the interface between economics and invasion biology. Students conducted group projects focused on “willingness to pay” for Asian Carp control and Great Lakes shipping.
- Bayesian Methods for Ecology (6990/8990) This team-taught course (with Bossenbroek) was designed to make students familiar with concepts and software needed to carry out Bayesian analysis of ecological and environmental studies.
- Lake Erie Fish Management (4990/6990/8990) Team-taught graduate/undergraduate course (C. Stepien and guest instructor P. Kocovsky) that combined classic and current literature on topics in central areas of fisheries management.
- Escape from the Ivory Tower (4990/6990/8990) Team-taught graduate/undergraduate course (M. Weintraub) on communicating science to the public.

### **Syracuse University**

- **Introductory Ecology: an aquatic perspective.** This was an undergraduate course that introduced students to the basic principles of population, community, and ecosystem ecology using primarily aquatic examples. There was also coverage of the basic principles of aquatic physical science. This course included two writing assignments and one oral presentation. I was the sole instructor.
- **Field and laboratory experience in Environmental Science,** co-taught with Geoffrey Seltzer of the Department of Earth Science. Hypothesis development and testing were stressed. This course was supported by the Syracuse University Vision Fund. This course was renamed Geology and Ecology of Regional Environments for the Fall of 2002.

### **College of Charleston**

**Introductory Biology.** A 3-credit-hour course in introductory molecular and cellular biology for non-majors. I developed and wrote all lectures, learning activities, and exams for this course.

### **Cornell University**

**Stream Ecology Laboratory teaching assistant for Stream Ecology with Professors Mark Bain and Barbara Peckarsky**

## Graduate Research Supervision

### PhD

Bin Zhu (Syracuse U, 2006); Direct and Indirect Ecological Effects of Dreissenid Mussels (the Zebra Mussel *Dreissena polymorpha* and the Quagga Mussel *D. bugensis*) on Submerged Macrophytes in North American Lakes

Peibing Qin (Syracuse U, 2007); Effects of environmental factors on periphyton production and stoichiometry

Kristen Devanna (2011); Mayfly and zebra mussel ecology

Nathan Manning (2013, co-advised with J. Bossenbroek) Spatial modeling of fish foraging and growth

Jeremy Pritt (2014) Fish ecology and river-lake connections

Mark DuFour (2016); co-advised with S. Qian) Quantitative methods of fish abundance assessment

Jason Fisher (enrolled) Detroit River habitat restoration assessment

### MS

Rebecca Johnson (Cacela) (Syracuse U., 2005); Increased benthic algal primary production in response to zebra mussel (*Dreissena polymorpha*) invasion in Oneida Lake, NY

Brian Elkington (2006); The effects of algal and sediment turbidity on zooplankton consumption by young of year yellow perch (*Perca flavescens*)

Kristen Devanna (2007); Benthic ecology and exotic species effects

Colleen Wellington (2008; co-advised with J. Bossenbroek) Effects of turbidity and prey density on the foraging success of age-0 yellow perch (*Perca flavescens*)

Patricia Armenio (2010), Effects of *Dreissena* on benthic algae

Erin Spetz (non thesis 2011) IMPACT program

Mark DuFour (MS 2012) Larval fish ecology

Jason Ross (Fall 2013) Fish ecology and nearshore habitat

Rachel Kuhaneck (Fall 2013) Benthic ecology and nearshore habitat

Brian Schmidt (Fall 2015) Fish ecology, habitat

Casey Yanos (Fall 2016, coadvised with S. Qian) trophic transfer, ecological modeling

Holly Embke (Spring 2017, coadvised with S. Qian) grass carp spawning in Great Lakes

Martin Simonson (enrolled, coadvised with S. Qian) nearshore habitat and fish ecology

Zachary Amidon (enrolled) whitefish spawning ecology

## Graduate Committee Membership

- Ryan Argo (UT, MS, Moorhead, graduated)
- Kerry McKenna (UT, PhD, Moorhead, graduated)
- Rachel Henderson (UT, MS, Chen, graduated)
- Betsy Bodamer (UT, MS., Bossenbroek, graduated)
- Joshua Brown (UT, PhD, Stepien, graduated)
- Mathew Nielson (UT, PhD, Stepien, graduated)
- Joshua Osborn (MS, Biological Sciences, BGSU Miner, graduated)
- Xinli Ji (PhD, S.U.N.Y.-E.S.F., graduated)
- Betsy Bodamer (PhD, D.E.S., Bridgeman)
- Mike Deal (MS, D.E.S., Chen, graduated)
- Sarah Paneck (MS, D.E.S., Bridgeman, graduated)
- Kamalika Ganguly (PhD, DES, Bossenbroek)
- Troy Fagan (MS, BGSU, Miner, graduated)

- Jennifer Sieraki (PhD, DES, Bossenbroek)
- Katherine Ennis (PhD, DES, Philpott, transferred)
- Nicholas Bryan (MS,DES, Moorhead)
- Jessica Sherman (PhD, DES Bossenbroek)
- Ken Gibbons (MS, DES Bridgeman)

#### Undergraduate Research Supervision

Karen Moll (SU) 2000; Assessment of the long-term impact of zebra mussels in a bay of Oneida Lake.

Jocelyn Ban (SU) 2001; Measurement of benthic algal primary production

Nicole Lynch (SU) 2001; Behavior of an exotic amphipod, *Echinogammarus ischnus*

Jacqueline Philippon (SU) 2001-2003; Ecology and distribution of an exotic amphipod, *Echinogammarus ischnus*

Carolyn Doehring (UT) 2004; REU, Ecology and distribution of western Lake Erie Benthic invertebrates

Caroline Barret (UT-REU) 2005-2007; REU Benthic ecology and exotic species effects

Nathan Stroh (UT-REU, co-advised with J. Bossenbroek) Environmental effects on fish foraging

Kate Doan (UT-REU) 2007 Mayfly – *Dreissena* interactions

Patricia Cope-Armenio (UT-Independent study and research tech) Mayfly–*Dreissena*-fish interactions.

Marcella Cruz (UT-REU) 2008 Environmental effects on fish foraging

Michael Kuebbeler (UT grant supported tech); Fish ecology

Robert Mapes (UT-URM); Larval fish ecology

Kristen Woodling (UT-grant supported tech; honors); fish ecology and habitat effects

Annie Doerr (UT-URM); fish ecology and habitat effects

Cory Becher (UT grant supported tech); Fish ecology

Rachel Johnson (UT-grant supported tech; honors thesis in progress) fish ecology and habitat effects

Kristen Hebabrand (UT-grant supported tech; honors thesis in progress) larval fish ecology

Benjamin Kuhaneck (UT-grant supported tech; honors thesis in progress) fish ecology and habitat effects

#### **PROFESSIONAL SERVICE**

- Judged student papers/posters at: 1) American Fisheries Society annual meeting, 2) North American Benthological Society Meeting 3) International Association of Great Lakes Researchers 4) American Society of Limnology and Oceanography
- Reviewed papers for:
  - Archiv Fur Hydrobiologie
  - Canadian Journal of Fisheries and Aquatic Resources.
  - Journal of the International Association of Great Lakes Researchers
  - Journal of the Marine Biological Association of the United Kingdom,
  - Journal of the North American Benthological Society
  - Limnology and Oceanography
  - Living Aquatic Resources
  - Microbial Ecology
  - Transactions of the American Fisheries Society

- Reviewed proposals for:
  - Unites States Department of Agriculture
  - National Oceanic and Atmospheric Administration
  - National Science Foundation
  - Great Lakes Fisheries Trust
- American Fisheries Society Continuing Education Committee, 1996.
- J. Frances Allen scholarship committee of the American Fisheries Society, 2002-2007
- Panel member for USDA Managed Ecosystems Program April 2003
- Program Chair for 2006 annual meeting of the International Association of Great Lakes Researchers
- Program Chair for 2009 annual meeting of the International Association of Great Lakes Researchers
- Board of Directors Officer and Treasurer for International Association of Great Lakes Researchers
- President of Governing Board of the Ohio Chapter of the American Fisheries Society (2016)
- Appointment to International Joint Commission Science Advisory Board-Research Coordination Committee
- Past President of Governing Board of the Ohio Chapter of the American Fisheries Society (2017)

#### **COMMUNITY SERVICE**

- Board of Supervisors, Lucas Soil and Water Conservation District (January 2015-present)
- Village of Ottawa Hills (Ohio); Mosquito Task Force, 2014, served as technical expert

#### **ACADEMIC SERVICE**

##### University of Toledo

- DES Assessment Committee-MS and PhD in Biology
- DES Graduate Affairs Committee 2014-present
- DES Seminar Coordinator 2 years ending Spring 2013
- Chair, DES undergraduate recruiting committee 2010-2011
- Faculty search committee for: 1) Lake Erie Center Director 2) Watershed Ecologist 3) Limnologist 4) Sustainability Scientist 5) Biometrist (Math Dept)
- Member of ad hoc committee on graduate degrees in the DES, 2004-2007
- Member LEC advisory committee 2005-present
- Hosted departmental seminar speakers 2004-2013
- Chaired session and/or judged presentations at University of Toledo chapter of Sigma Xi. 2005-2006
- Chair Undergraduate Affairs Committee DES, 2007-2009
- Member Webpage Committee DES, 2007- 2009

##### Syracuse University

- Faculty search committee for ecologist position (2000-2001)
- ad hoc* committee to develop Biology 115, Environmental Problems and Society
- Building committee, teaching subcommittee
- Co-organized Biology Undergraduate Research Conference 2001, 2002
- Developed course plans and course descriptions for two new senior level classes to be taught as part of a new Environmental Science major

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

- American Fisheries Society
- International Association of Great Lakes Researchers