

ALAN ELLIOTT WILSON

Auburn University ◊ Department of Fisheries and Allied Aquacultures
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EDUCATION

Georgia Institute of Technology - Atlanta, Georgia; Advisor: Dr. Mark E. Hay

2006 - Ph.D., Applied Biology; Minor in Chemical Ecology

Dissertation: *Cyanobacteria-grazer interactions: Consequences of toxicity, morphology, and genetic diversity*

Michigan State University - East Lansing, Michigan; Advisor: Dr. Orlando "Ace" Sarnelle

2001 - M.S., Fisheries and Wildlife; Specialization in Ecology, Evolutionary Biology, and Behavior

Thesis: *Complex interactions between zebra mussels and their planktonic prey*

University of North Carolina at Chapel Hill - Chapel Hill, North Carolina

1997 - B.A., Biology - Graduated with Distinction

Young Harris College - Young Harris, Georgia

1995 - A.S., Biology - Graduated with Highest Honors

PROFESSIONAL EXPERIENCE

Auburn University - Department of Fisheries and Allied Aquacultures

2007 - present Assistant Professor

University of Michigan at Ann Arbor - Cooperative Institute for Limnology and Ecosystems Research (CILER)

2006 - 2007 Postdoctoral research investigator

RESEARCH GRANTS AND AWARDS

CURRENT SUPPORT

2010 - 2013 NSF - Research Experiences for Undergraduates program - \$292,141 (Wilson, PI)

2010 - 2011 CDC - National Center for Environmental Health - \$89,625 (Backer, PI)

2010 NSF - Major Research Instrumentation RAPID program - \$100,002 (Moss, PI)

2009 - 2013 NSF - Ecology program, collaborative project - \$113,578 (Wilson, PI)

2009 - 2013 NSF - Ecology program, collaborative project - \$286,183 (Sarnelle, PI)

PAST SUPPORT

2010 NSF - Ecology program, REU supplement - \$7,500 (Wilson, PI)

2009 - 2010 NSF - Ecology program, RAHSS supplement - \$4,467 (Wilson, PI)

2008 - 2010 Auburn University Water Center - \$500,000 (Deutsch, PI)

2008 - 2010 Auburn University AAES Hatch program - \$50,000 (Wilson, PI)

2008 - 2010 Auburn University AAES Hatch program - \$50,000 (Stoeckel, PI)

2007 - 2008 Auburn University AAES Agricultural Initiatives - \$54,650 (Wilson, PI)

2007 - 2008 NCEAS Postdoctoral fellowship award - \$40,500 (declined)

2006 - 2007 NOAA research awards - \$43,114

2006 ASLO student travel award - \$250

2003 - 2006 EPA STAR Graduate Research fellowship award - \$102,000

2003 National Sea Grant Program grant - \$13,000

2002 - 2003 NSF Integrative Graduate Education and Research Training Program awards - \$6,715

2001 - 2002 Georgia Tech School of Biology Chemical Ecology fellowship award - \$7,000

2000 Cooperative Institute for Limnology and Ecosystems Research grant - \$9,100

1999 - 2000 NSF Research Training grants (Kellogg Biological Station, MSU) - \$2,000

1999 - 2000 George H. Lauff scholarship awards (Kellogg Biological Station, MSU) - \$1,750

HONORS

2007 - 2008	NCEAS Postdoctoral Fellow (declined)
2003 - 2006	EPA STAR Graduate Fellow (Georgia Tech)
2004	Most Outstanding Biology Graduate Student Award 2004 (Georgia Tech)
2002 - 2003	NSF Integrative Graduate Education and Research Training Fellow (Georgia Tech)
2001 - 2002	School of Biology Chemical Ecology Fellow (Georgia Tech)
1997	Phi Beta Kappa, national honor society (University of North Carolina at Chapel Hill)
1995 - 1996	Sonya Stone Academic Scholarship (University of North Carolina at Chapel Hill)
1995	Presidential Scholar Award (Young Harris College)
1994	Phi Theta Kappa, national honor society (Young Harris College)

PUBLICATIONS (# DENOTES STUDENT AUTHOR)

16. **Wilson, A. E.**, R. B. Kaul#, and O. Sarnelle. 2010. Growth rate consequences of coloniality in a harmful phytoplankter. *PLoS ONE* 5(1): e8679. doi:10.1371/journal.pone.0008679
15. Sarnelle, O. and **A. E. Wilson**. 2008. Type III functional response in *Daphnia*. *Ecology* 89(6):1723-1732.
14. Tillmanns, A. R., **A. E. Wilson**, F. R. Pick, and O. Sarnelle. 2008. Meta-analysis of cyanobacterial effects on zooplankton population growth rate: species-specific responses. *Fundamental and Applied Limnology* 171(4):285-295.
13. **Wilson, A. E.**, D. C. Gossiaux, T. O. Höök, J. P. Berry, P. F. Landrum, J. Dyble, and S. J. Guildford. 2008. Evaluation of the human health threat associated with the hepatotoxin, microcystin, in the muscle and liver tissues of yellow perch (*Perca flavescens*). *Canadian Journal of Fisheries and Aquatic Sciences* 65(7):1487-1497.
12. Knoll, L. B., O. Sarnelle, S. K. Hamilton, C. E. H. Kissman, **A. E. Wilson**, J. B. Rose, and M. R. Morgan. 2008. Invasive zebra mussels (*Dreissena polymorpha*) increase cyanobacterial toxin concentrations in low-nutrient lakes. *Canadian Journal of Fisheries and Aquatic Sciences* 65(3):448-455.
11. **Wilson, A. E.** 2007. Journal impact factors are inflated. *BioScience* 57(7):550-551.
10. **Wilson, A. E.** and M. E. Hay. 2007. A direct test of cyanobacterial chemical defense: Variable effects of microcystin-treated food on two *Daphnia pulicaria* clones. *Limnology and Oceanography* 52(4):1467-1479.
9. **Wilson, A. E.**, W. A. Wilson#, and M. E. Hay. 2006. Intraspecific variation in growth and morphology of the bloom-forming cyanobacterium, *Microcystis aeruginosa*. *Applied and Environmental Microbiology* 72(11):7386-7389.
8. **Wilson, A. E.**, O. Sarnelle, and A. R. Tillmanns. 2006. Effects of cyanobacterial toxicity and morphology on the population growth of freshwater zooplankton: Meta-analyses of laboratory experiments. *Limnology and Oceanography* 51(4):1915-1924.
7. **Wilson, A. E.**, O. Sarnelle, B. A. Neilan, T. P. Salmon, M. M. Gehringer, and M. E. Hay. 2005. Genetic variation of the bloom-forming cyanobacterium *Microcystis aeruginosa* within and among lakes: Implications for harmful algal blooms. *Applied and Environmental Microbiology* 71(10):6126-6133.
6. Sarnelle, O. and **A. E. Wilson**. 2005. Local adaptation of *Daphnia pulicaria* to toxic cyanobacteria. *Limnology and Oceanography* 50(5):1565-1570.
5. Sarnelle, O., **A. E. Wilson**, S. K. Hamilton, L. B. Knoll, and D. F. Raikow. 2005. Complex interactions between the zebra mussel, *Dreissena polymorpha*, and the harmful phytoplankter, *Microcystis aeruginosa*. *Limnology and Oceanography* 50(3):896-904.
4. Hay, M. E., J. D. Parker, D. E. Burkepile, C. C. Caudill, **A. E. Wilson**, Z. P. Hallinan, and A. D. Chequer. 2004. Mutualisms and aquatic community structure: The enemy of my enemy is my friend. *Annual Review of Ecology, Evolution, and Systematics* 35:175-197.
3. Raikow, D. F., O. Sarnelle, **A. E. Wilson**, and S. K. Hamilton. 2004. Dominance of the noxious cyanobacterium *Microcystis aeruginosa* in low-nutrient lakes is associated with exotic zebra mussels. *Limnology and Oceanography* 49(2):482-487.
2. **Wilson, A. E.** 2003. Effects of zebra mussels on phytoplankton and ciliates: A field mesocosm experiment. *Journal of Plankton Research* 25(8):905-915.
1. **Wilson, A. E.** and O. Sarnelle. 2002. Relationship between zebra mussel biomass and total phosphorus in European and North American lakes. *Archiv für Hydrobiologie* 153(2):339-351.

REVIEWING ACTIVITIES

FUNDING AGENCIES

National Science Foundation (panels: Population and Community Ecology cluster, Ecological Biology DDIG; proposals: Ecological Biology, Ecosystem Science), Ecology Netherlands Organisation for Scientific Research, Oklahoma Water Resources Research Institute, Ecology and Oceanography of Harmful Algal Blooms (ECOHAB)

JOURNALS

Ecological Monographs, American Naturalist, Limnology and Oceanography, PLoS ONE, Environmental Microbiology, Freshwater Biology, Environmental Science & Technology, Journal of Plankton Research, Marine Ecology Progress Series, Oikos, Water Research, Journal of Experimental Marine Biology and Ecology, African Journal of Aquatic Science, Aquatic Ecology, Archiv für Hydrobiologie, Biochemical Systematics and Ecology, Marine Drugs, Cell Biology and Toxicology, Ecotoxicology and Environmental Safety, Harmful Algae, Journal of Applied Microbiology, Hydrobiologia

INVITED PRESENTATIONS

- Wilson, A. E.** Water quality and human perturbations. Florida Department of Environmental Protection, webinar from Auburn University, Auburn, Alabama, 2010.
- Wilson, A. E.** Ecological consequences of intraspecific variation. University of Notre Dame, Department of Biological Sciences, South Bend, Indiana, 2010.
- Wilson, A. E.** Are there consequences of herbivore intraspecific variation for managing noxious cyanobacterial blooms? Purdue University, Department of Forestry and Natural Resources, West Lafayette, Indiana, 2009.
- Wilson, A. E.** Are there consequences of herbivore intraspecific variation for managing noxious cyanobacterial blooms? Auburn University, Department of Biological Sciences, Auburn, Alabama, 2009.
- Wilson, A. E.** Functional redundancy in cyanobacteria-tolerant *Daphnia pulicaria*. University of Georgia, Odum School of Ecology. Athens, Georgia, 2008.
- Wilson, A. E.** Community genetics of cyanobacteria-grazer interactions: Consequences for harmful algal blooms. University of Miami, Rosenstiel School of Marine and Atmospheric Science. Miami, Florida, 2007.
- Wilson, A. E.** Community genetics of cyanobacteria-grazer interactions: Consequences for harmful algal blooms. Florida International University, Department of Biological Sciences. Miami, Florida, 2007.
- Wilson, A. E.** Grazer-cyanobacteria interactions: Consequences for harmful algal blooms in freshwater systems. Auburn University, Department of Fisheries and Allied Aquacultures. Auburn, Alabama, 2007.
- Wilson, A. E.** Community genetics of cyanobacteria-grazer interactions. Michigan State University, Kellogg Biological Station. Hickory Corners, Michigan, 2007.
- Wilson, A. E.** Community genetics of cyanobacteria-grazer interactions. Grand Valley State University, Annis Water Resources Institute. Muskegon, Michigan, 2007.
- Wilson, A. E.** Should we avoid eating Lake Erie yellow perch during a cyanobacterial bloom? University of Waterloo, School of Biology. Waterloo, Ontario, 2006.
- Wilson, A. E.** Cyanobacteria-grazer interactions: Consequences of toxicity, morphology, and genetic diversity. Georgia Institute of Technology, IGERT Signals in the Sea seminar series. Atlanta, Georgia, 2006.
- Wilson, A. E.** Cyanobacteria-grazer interactions: Effects of toxicity, morphology, and genetic diversity. Great Lakes Environmental Research Laboratory. Ann Arbor, Michigan, 2006.
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GRADUATE STUDENT ADVISEMENT

PRINCIPAL ADVISOR

Michael Chislock	Masters candidate	Summer 2008 to present
RajReni Kaul	Masters candidate	Summer 2008 to present

COMMITTEE MEMBER

Kathleen Morrow	Doctoral candidate	Spring 2008 to present
Andrew Landis	Doctoral candidate	Fall 2009 to present
Stephen Woodard	Masters candidate	Fall 2009 to present
Craig Roberts	Masters candidate	Fall 2010 to present