

ALAN E. WILSON

Auburn University
School of Fisheries, Aquaculture, and Aquatic Sciences
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Auburn, Alabama 36849
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<http://www.wilsonlab.com>

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 EXPERIENCES

Auburn University - School of Fisheries, Aquaculture, and Aquatic Sciences
2013 - present Associate Professor
National Science Foundation - Population and Community Ecology program, Division of Environmental Biology
2014 - 2016 Program Director
University of North Carolina at Chapel Hill - Global Research Institute
2013 Fellow
Auburn University - Department of Biological Sciences
2010 - 2013 Assistant Professor (courtesy joint appointment)
Auburn University - School of Fisheries, Aquaculture, and Aquatic Sciences
2007 - 2013 Assistant Professor
University of Michigan at Ann Arbor - Cooperative Institute for Limnology and Ecosystems Research (CILER)
2006 - 2007 Postdoctoral research investigator

GRANTS, CONTRACTS, AND AWARDS (Total \$7,901,077; External \$6,940,848; Awarded but Declined \$40,500)

CURRENT SUPPORT

2018 - 2023 NSF - Dimensions of Biodiversity - \$1,999,994 (Hambright, lead institution PI; Wilson, PI of Auburn portion \$379,121)
2017 - 2020 NSF - Research Experiences for Undergraduates program - \$358,834 (Wilson, PI)
2017 - 2019 USDA-NIFA Aquaculture program - \$261,613 (Wilson, PI; Roy, co-PI)
2017 - 2019 Birmingham Water Works Board contract - \$57,720 (Wilson, PI)
2016 - 2021 NSF - S-STEM program - \$2,034,382 (Jenda, PI; Wilson, co-PI)

PAST SUPPORT

2018 NSF supplement - Research Experiences for Undergraduates program - \$13,909 (Wilson, PI)
2016 - 2018 NSF - INCLUDES program - \$285,769 (Jenda, PI; Wilson, co-PI)
2016 - 2018 Auburn University - AAES AgR-SEED program - \$50,000 (Wilson, PI)

2017 AU-OUC Joint Center - \$75,000 (Wilson, PI)
 2015 - 2016 Sha'Ked Microbial contract - \$19,475 (Wilson, PI)
 2014 - 2016 NSF Intergovernmental Personnel Act contract - \$242,605 (Wilson, PI)
 2011 - 2015 USGS - National Institutes for Water Resources - \$247,891 (Wilson, PI)
 2014 - 2015 Sha'Ked Microbial contract - \$36,685 (Wilson, PI)
 2011 - 2014 Great Lakes Fishery Trust - \$385,000 (Höök, PI; Wilson, co-PI)
 2013 - 2014 Auburn University - Competitive Outreach Scholarship grant - \$20,000 (Goodwin, PI; Wilson, co-PI)
 2010 - 2014 NSF - Research Experiences for Undergraduates program - \$292,141 (Wilson, PI)
 2009 - 2014 NSF - Ecology program, collaborative project - \$113,578 (Wilson, PI)
 2009 - 2014 NSF - Ecology program, collaborative project - \$286,183 (Sarnelle, PI; Wilson, co-PI)
 2013 - 2014 USGS - Alabama Water Resources Institute - \$15,000 (Wilson, PI)
 2012 NSF - Ecology program, RAHSS supplement - \$5,750 (Wilson, PI)
 2010 - 2012 Auburn University - AAES Hatch program - \$50,000 (Wilson, PI)
 2010 - 2012 Auburn University - AAES Hatch program - \$50,000 (Wang, PI; Wilson, co-PI)
 2011 NSF - Ecology program, REU supplement - \$7,500 (Wilson, PI)
 2010 - 2011 NSF - Major Research Instrumentation RAPID program - \$100,002 (Moss, PI; Wilson, co-PI)
 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; Wilson, co-PI)
 2008 - 2010 Auburn University - AAES Hatch program - \$50,000 (Wilson, PI)
 2008 - 2010 Auburn University - AAES Hatch program - \$50,000 (Stoeckel, PI; Wilson, co-PI)
 2007 - 2008 Auburn University - AAES Agricultural Initiatives program - \$54,650 (Wilson, PI)
 2007 - 2008 NCEAS Postdoctoral fellowship award - \$40,500 (awarded but 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

2018 USDA Food and Agriculture Sciences Excellence in Teaching Award - southeastern US region
 2018 College of Agriculture High Impact Paper of the Year Award (Auburn University)
 2018 College of Agriculture Dean's Grantsmanship Award (Auburn University)
 2017 Fellow, Association for the Sciences of Limnology and Oceanography (ASLO)
 2017 College of Agriculture Dean's Award for Excellence in Instruction (Auburn University)
 2017 College of Agriculture Dean's Grantsmanship Award (Auburn University)
 2014 Auburn University Provost's Award for Excellence in Fostering Undergraduate Research and Creative Scholarship (*this award is the highest honor at Auburn University related to the mentoring of undergraduate students in research*)
 2014 Purdue University Scholar of Sustainability (awarded but declined)
 2013 University of North Carolina at Chapel Hill Global Research Institute Fellow
 2010 Alabama Agricultural Experiment Station Director's Junior Faculty Research Award (*this award is the highest research honor available to an Assistant Professor in my college*)
 2010 College of Agriculture Dean's Grantsmanship Award (Auburn University)
 2007 - 2008 NCEAS Postdoctoral Fellow (awarded but 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)

STUDENT HONORS AND AWARDS (Total \$354,398)

2017 - 2020	Edna Fernandez	NSF GRFP Fellowship	\$138,000
2017 - 2020	Nadia Bowles	Tuskegee NSF MAKERS scholarship	\$22,500
2018 - 2019	LeeAnn Johnston	AU Undergraduate Research Fellow award	\$3,000
2017 - 2018	Mário Barros	Brazilian CAPES doctoral student fellowship	\$19,798
2018	Edna Fernandez	ASLO Science Communication Intern	\$12,000
2018	LeeAnn Johnston	Hydro Think Tank Group Competition - 2 nd prize	\$300
2017	Edna Fernandez	9 th US HABs Symposium - best poster	\$250
2017	Edna Fernandez	College of Agriculture Graduate Student Poster Showcase 2 nd place MS poster presentation	\$200
2017	Bettina Welz	DAAD RISE fellowship (German exchange program)	\$2,000
2017	Edna Fernandez	AL/MS American Water Works Assoc. scholarship	\$3,000
2017	Jess Choi	AU This is Research 3 rd place Science oral presentation	not applicable
2017	Edna Fernandez	SEC Campus Water Matters Group Competition	2 nd prize
2015	Brianna Olsen	Alabama Fisheries Association Best Oral Presentation	not applicable
2011 - 2014	Michael Chislock	EPA STAR Graduate Fellowship	\$126,000
2014	Anja Rebelein	DAAD RISE fellowship (German exchange program)	\$5,500
2014	Brianna Olsen	AU Graduate student thesis research grant	\$500
2014	Brianna Olsen	AU Graduate student travel grant	\$300
2013	Jo-Marie Kasinak	MidSouth Aquatic Plant Management Society Student Scholarship	\$2,000
2013	Jo-Marie Kasinak	Sigma Xi Grants-in-Aid of Research grant	\$600
2013	Jo-Marie Kasinak	AU Graduate student research grant	\$500
2013	Enrique Doster	AU Research Week 3 rd place STEM poster	not applicable
2013	Jo-Marie Kasinak	AU Outstanding Oral Presentation at Graduate Forum	not applicable
2012 - 2013	Enrique Doster	AU Undergraduate Research Fellow award	\$6,000
2012	Michael Chislock	SE NALMS conference best talk award	\$100
2012	Michael Chislock	AU Graduate student research grant	\$500
2012	Jo-Marie Kasinak	AU Graduate student research grant	\$500
2012	Michael Chislock	Harry Merriwether Outstanding student award	\$2,000
2012	Katie LeMay	Sigma Xi Grants-in-Aid of Research grant	\$400
2011 - 2012	Vernon Anderson	AU Undergraduate Research Fellow award	\$6,000
2011	Michael Chislock	AU Most Outstanding Masters Student award	not applicable
2011	Michael Chislock	AU Graduate student travel grant	\$500
2011	Michael Chislock	ASLO student travel grant	\$500
2011	Michael Chislock	AFS student travel grant	\$100
2011	Michael Chislock	AU FAA Graduate student travel grant	\$250
2010	Michael Chislock	AU Graduate student travel grant	\$300
2009	Michael Chislock	AU Graduate student research grant	\$1,000
2009	RajReni Kaul	AU Graduate student research grant	\$1,000
2009	RajReni Kaul	Alabama Fisheries Association student grant	\$500
2008	Michael Chislock	Sigma Xi Grants-in-Aid of Research grant	\$1,000

BOOK CHAPTERS (# STUDENT AUTHOR)

3. Bullard, A., D. DeVries, **A. Wilson**, H. Kinnucan, P. Clement, G. Lockaby, and C. Newland. 2015. Science or snake oil: Scholarship and peer review in the digital age. Book chapter in *Auburn Speaks: On Cyber and the Digital Domain*. Published by Auburn University. pp. 201-211.
 2. **Wilson, A. E.** and M. F. Chislock#. 2013. Ecological control of cyanobacterial blooms in freshwater ecosystems. Invited book chapter in *Cyanobacteria: Toxicity, ecology, and management*. Editor: A. Ferrão-Filho. Nova Science Publishers, Inc., New York. pp. 213-221.
 1. Vanderploeg, H. A., **A. E. Wilson**, T. H. Johengen, J. Dyble, O. Sarnelle, J. R. Leibig, S. D. Robinson, and G. P. Horst. 2013. The role of selective grazing by dreissenid mussels in promoting toxic *Microcystis* blooms and other changes in phytoplankton composition in the Great Lakes. Invited book chapter in *Quagga and Zebra Mussels: Biology, Impacts, and Control, Second Edition*. Editors: T. Nalepa and D. Schloesser. CRC Press, Boca Raton, Florida. pp. 509-524.
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PEER-REVIEWED PUBLICATIONS (# STUDENT AUTHOR)

54. Bird, G., C. Kaczvinsky, **A. E. Wilson**, and N. B. Hardy. *In press*. When do herbivorous insects compete? A phylogenetic meta-analysis. *Ecology Letters*.
53. Thurlow, C. M.#, M. A. Williams, M. A.#, , A. Carrias#, C. Ran#, M. Newman#, J. Tweedie, E. Allison#, L. N. Jescovitch#, **A. E. Wilson**, J. Terhune, and M. R. Liles. 2019. *Bacillus velezensis* AP193 exerts probiotic effects in channel catfish (*Ictalurus punctatus*) and reduces aquaculture pond eutrophication. *Aquaculture* 503:347-356.
52. Wadsworth, P.#, **A. E. Wilson**, and W. C. Walton. 2019. A meta-analysis of growth rate in diploid and triploid oysters. *Aquaculture* 499:9-16.
51. Delaney, M. A.#, A. A. ArchMiller#, D. P. Delaney, **A. E. Wilson**, and E. J. Sikora. 2018. Fungicide effectiveness on soybean rust in the southeastern United States 2004-2014: a meta-analysis. *Sustainability* 10:1784.
50. **Wilson, A. E.**, J. L. Pollock#, I. Billick, C. Domingo, E. Fernandez-Figueroa#, E. Nagy, T. D. Steury, and A. Summers. 2018. Assessing science training programs: structured undergraduate research programs make a difference. *BioScience* 68(7):529-534. **(Editor's Choice)**
49. Yang, Z., R. P. Buley#, E. Fernandez-Figueroa#, M. Barros#, S. Rajendran#, and **A. E. Wilson**. 2018. Hydrogen peroxide treatment promotes chlorophytes over toxic cyanobacteria in a hyper-eutrophic aquaculture pond. *Environmental Pollution* 240:590-598.
48. Minasyan, A., C. Christophoridis, **A. E. Wilson**, S.-K. Zervou, T. Kaloudis, and A. Hiskia. 2018. Diversity of cyanobacteria and the presence of cyanotoxins in the epilimnion of Lake Yerevan (Armenia). *Toxicon* 150:28-38.
47. Baker, B. C.#, **A. E. Wilson**, and J. T. Scott. 2018. Phytoplankton N₂ fixation efficiency and its effects on harmful algal blooms. *Freshwater Science* 37(2):264-275.
46. **Wilson, A. E.**, M. F. Chislock#, Z. Yang, M. U. G. Barros#, and J. F. Roberts. 2018. Pond bank access as an approach for managing toxic cyanobacteria in beef cattle pasture drinking water ponds. *Environmental Monitoring and Assessment* 190:247.
45. Weaver, R. J.#, E. S. A. Santos, A. M. Tucker#, **A. E. Wilson**, and G. E. Hill. 2018. Carotenoid metabolism strengthens the link between feather coloration and quality. *Nature Communications* 9:73.
44. Jameel, Y.#, S. Stein#, E. Grimm#, C. Roswell, **A. E. Wilson**, C. Troy, T. Höök, and G. Bowen. 2018. Physicochemical characteristics of a southern Lake Michigan river plume. *Journal of Great Lakes Research* 44:209-218.
43. Lyu, K.#, L. Zhang#, L. Gu#, X. Zhu#, **A. E. Wilson**, and Z. Yang. 2017. Cladoceran offspring tolerance to toxic *Microcystis* is promoted by maternal warming to toxic *Microcystis*. *Environmental Pollution* 227:451-459.
42. Olsen, B. K.#, M. F. Chislock#, A. Rebelein#, and **A. E. Wilson**. 2017. Nutrient enrichment and vertical mixing mediate two common off-flavors, 2-methylisoborneol and geosmin, in a drinking water reservoir. *Water Science & Technology: Water Supply* 17(2):500-507.
41. Olsen, B. K.#, M. F. Chislock#, and **A. E. Wilson**. 2016. Eutrophication mediates a common off-flavor compound, 2-methylisoborneol, in a drinking water reservoir. *Water Research* 92:228-234.

40. Ger, K. A., P. Urrutia-Cordero, P. C. Frost, L.-A. Hansson, O. Sarnelle, **A. E. Wilson**, and M. Lüring. 2016. The interaction between cyanobacteria and zooplankton in a more eutrophic world. *Harmful Algae* 54:128-144. (**Clarivate Analytics Web of Science Highly Cited Paper**)
39. Lyu, K.#, H. Guan#, C. Wu#, X. Wang#, **A. E. Wilson**, and Z. Yang. 2016. Maternal consumption of non-toxic *Microcystis* by *Daphnia magna* induces offspring tolerance to toxic *Microcystis* in offspring. *Freshwater Biology* 61(2):219-228.
38. Koch, R. E.#, **A. E. Wilson**, and G. E. Hill. 2016. The importance of carotenoid dose in supplementation studies with songbirds. *Physiological and Biochemical Zoology* 89(1):61-71.
37. Kollock, R. O., K. Games#, **A. E. Wilson**, and J. M. Sefton. 2016. Vehicle exposure and spinal musculature fatigue in military warfighters: a meta-analysis. *Journal of Athletic Training* 51(11):981-990.
36. Kollock, R. O., C. Andrews, A. Johnston, T. Elliott, **A. E. Wilson**, K. Games#, and J. M. Sefton. 2016. A meta-analysis to determine if lower extremity muscle strengthening should be included in military knee overuse injury prevention programs. *Journal of Athletic Training* 51(11):919-926.
35. Goessling, J. M.#, H. Kennedy, M. T. Mendonça, and **A. E. Wilson**. 2015. A meta-analysis of plasma corticosterone and heterophil:lymphocyte ratios – Is there conservation of physiological stress responses over time? *Functional Ecology* 29:1189-1196.
34. ArchMiller, A. A.#, E. F. Bauer#, R. E. Koch#, B. K. Wijayawardena#, A. Anil#, J. J. Kottwitz#, A. S. Munsterman#, and **A. E. Wilson**. 2015. Formalizing the definition of meta-analysis in *Molecular Ecology*. *Molecular Ecology* 24:4042-4051.
33. Kasinak, J.-M. E.#, C. J. Bishop#, R. A. Wright, and **A. E. Wilson**. 2015. Grass carp do not consume the nuisance benthic cyanobacterium, *Lynghya wollei*. *Journal of Aquatic Plant Management* 53:74-80.
32. Lyu, K.#, L. Zhang#, X. Zhu#, G. Cui#, **A. E. Wilson**, and Z. Yang. 2015. Arginine kinase in the cladoceran *Daphnia magna*: cDNA sequencing and expression is associated with resistance to toxic *Microcystis*. *Aquatic Toxicology* 160(2015):13-21.
31. Kasinak, J.-M. E.#, B. M. Holt#, M. F. Chislock#, and **A. E. Wilson**. 2015. Benchtop fluorometry of phycocyanin as a rapid approach for estimating cyanobacterial biovolume. *Journal of Plankton Research* 37(1):248-257.
30. Kollock, R. O., K. Games#, **A. E. Wilson**, and J. M. Sefton. 2015. Effects of vehicle-ride exposure on cervical pathology – a meta-analysis. *Industrial Health* 53:197-205.
29. Games, K.#, J. M. Sefton, and **A. E. Wilson**. 2015. Whole-body vibration and blood flow and muscle oxygenation: a meta-analysis. *Journal of Athletic Training* 50(5):542-549.
28. Newcomer, B. W., P. H. Walz, M. D. Givens, and **A. E. Wilson**. 2015. Efficacy of bovine viral vaccination to prevent reproductive disease: a meta-analysis. *Theriogenology* 83(2015):360-365.
27. Chislock, M. F.#, K. L. Sharp#, and **A. E. Wilson**. 2014. *Cylindrospermopsis raciborskii* dominates under very low and high nitrogen-to-phosphorus ratios. *Water Research* 49:207-214.
26. Doster, E.#, M. F. Chislock#, J. Roberts, J. Kottwitz, and **A. E. Wilson**. 2014. Recognition of an important water quality issue at zoos: prevalence and potential threat of toxic cyanobacteria. *Journal of Zoo and Wildlife Medicine* 45(1):174-177.
25. Chislock, M. F.#, O. Sarnelle, B. K. Olsen#, E. Doster#, and **A. E. Wilson**. 2013. Large effects of consumer offense on ecosystem structure and function. *Ecology* 94(11):2375-2380.
24. Chislock, M. F.#, O. Sarnelle, L. M. Jernigan#, and **A. E. Wilson**. 2013. Do high concentrations of microcystin prevent *Daphnia* control of phytoplankton? *Water Research* 47(6):1961-1970.
23. Chislock, M. F.#, E. Doster#, R. A. Zitomer#, and **A. E. Wilson**. 2013. Eutrophication: Causes, consequences, and controls in aquatic ecosystems. *Nature Education Knowledge* 4(4):10.
22. Havird, J. C.#, R. P. Henry, and **A. E. Wilson**. 2013. Altered expression of Na⁺/K⁺-ATPase and other osmoregulatory genes in the gills of euryhaline animals in response to salinity transfer: A meta-analysis of 59 quantitative PCR studies over 10 years. *Comparative Biochemistry and Physiology, Part D* 8(2):131-140.
21. Goto, D., K. Lindelof#, D. L. Fanslow, S. A. Ludsin, J. J. Roberts, H. A. Vanderploeg, **A. E. Wilson**, and T. O. Höök. 2012. Ecological consequences of hypolimnetic hypoxia on survival and growth potential of *Daphnia mendotae* in the central basin of Lake Erie. *Aquatic Biology* 16:217-227.
20. Kozlowsky-Suzuki, B., **A. E. Wilson**, and A. S. Ferrão-Filho. 2012. Biomagnification or biodilution of microcystins in aquatic food webs? Meta-analyses of laboratory and field studies. *Harmful Algae* 18:47-55.
19. Logan, S. W., L. E. Robinson, **A. E. Wilson**, and W. A. Lucas. 2012. Getting the fundamentals of movement: A meta-analysis of the effectiveness of motor skill interventions in young children as assessed by

- the test of gross motor development. *Child: Care, Health & Development* 38(3):305-315.
18. White, J. D., R. B. Kaul#, L. B. Knoll, **A. E. Wilson**, and O. Sarnelle. 2011. Large variation in vulnerability to grazing within a population of the colonial phytoplankter, *Microcystis aeruginosa*. *Limnology and Oceanography* 56(5):1714-1724.
 17. Berry, J. P., E. Lee, K. Walton, **A. E. Wilson**, and F. Bernal-Brooks. 2011. Microcystin production by a persistent cyanobacterial bloom in Lago de Patzcuaro (Michiacan, Mexico) and apparent bioaccumulation of the toxin in small commercial catches of fish. *Environmental Toxicology and Chemistry* 30(7):1621-1628.
 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 pulex* 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 pulex* 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.

OTHER LAB PUBLICATIONS (# STUDENT AUTHOR)

9. Buley, R. P.#, Z. Yang#, M. F. Gladfelter#, and **A. E. Wilson**. *In press*. Controlling blue-green algal blooms in aquaculture pond using hydrogen peroxide. *Fish Farming News*
8. Brantley, E., R. Wright, K. Woods, **A. Wilson**, and T. Pettey. *In press*. I need my water tested. Alabama

Cooperative Education System Water Resources Program.

7. **Wilson, A. E.** and E. G. Fernandez-Figueroa#. 2018. Preparing water resource managers to identify and measure toxic cyanobacteria. *Streamlines* Spring 2018:18.
 6. **Wilson, A. E.** E. G. Fernandez#, R. P. Buley#, and L. A. Roy. 2018. Is sustainable control of toxic algae a reality for catfish aquaculture? *Fish Farming News* 2018(1):7-8.
 5. **Wilson, A. E.** and Z. A. Osorio#. 2016. DEB Numbers: Are aquatic ecologists underrepresented? *DEBrief* (NSF's Division of Environmental Biology blog) 11 July 2016.
 4. Chislock, M. F.#. 2015. Ecology and management of off-flavors and cyanotoxins. *LakeLine* Winter 2015:43-46.
 3. Olsen, B.#, C. Smith#, M. Chislock#, J. Kasinak#, and E. Doster#. 2013. Letter to the Editor: Association for the Sciences of Limnology and Oceanography (ASLO) 2013 Annual Meeting: Students' perspectives. *ASLO Bulletin* 22(3):83-84.
 2. **Wilson, A. E.**, M. F. Chislock#, E. Doster#, R. A. Wright, J. J. Kottwitz, H. Walz, and H. Rose. 2013. Toxic algae threaten livestock health. *The Alabama Cattleman* June 2013:16-17.
 1. Fowler, S., W. Deutsch, **A. E. Wilson**, and E. Reutebuch. 2012. Tallapoosa River basin numerical nutrient criteria for wadeable streams. Final Report for the Alabama Department of Environment Management, Agreement ADEM-C00594051
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PEER-REVIEWED PUBLICATIONS FROM TEACHING (# STUDENT AUTHOR)

25. Bird, G.#, C. Kaczvinsky#, A. E. Wilson, and N. B. Hardy. *In press*. When do herbivorous insects compete? A phylogenetic meta-analysis. *Ecology Letters*.
24. Roth, J.# and F. S. Dobson#. *In press*. Sylvatic plague management and prairie dogs – a meta-analysis. *Journal of Vector Ecology*.
23. Wadsworth, P.#, A. E. Wilson, and W. C. Walton. 2019. A meta-analysis of growth rate in diploid and triploid oysters. *Aquaculture* 499:9-16.
22. Martinez, A. S., J. R. Willoughby#, and M. R. Christie. 2018. Genetic diversity in fishes is influenced by habitat type and life-history variation. *Ecology and Evolution* 8:12022-12031.
21. Dobson, F. S.#, A. Abebe, H. Correia#, C. Kasumo, and B. Zinner. 2018. Multiple paternity and number of offspring in mammals. *Proceedings of the Royal Society B: Biological Sciences* 285:20182042.
20. Delaney, M. A.#, A. A. ArchMiller#, D. P. Delaney, A. E. Wilson, and E. J. Sikora. 2018. Fungicide effectiveness on soybean rust in the southeastern United States 2004-2014: a meta-analysis. *Sustainability* 10:1784.
19. Weaver, R. J.#, E. S. A. Santos, A. M. Tucker#, A. E. Wilson, and G. E. Hill. 2018. Carotenoid metabolism strengthens the link between feather coloration and quality. *Nature Communications* 9:73.
18. Merkle, J.# and M. Philips. 2018. The wage impact teachers unions: a meta-analysis. *Contemporary Economic Policy* 36(1):93-115.
17. Novriadi, R.# 2017. A meta-analysis approach toward fish meal replacement with fermented soybean meal: effects on growth performance and feed conversion ratio. *Asian Fisheries Science Journal* 30(4):227-244.
16. Willoughby, J. R.#, M. Sundaram, B. K. Wijayawardena#, M. C. Lamb, S. J. A. Kimble, Y. Ji, N. B. Fernandez, J. D. Antonides, N. J. Marra, and J. A. DeWoody. 2017. Biome and migratory behavior significantly influence vertebrate genetic diversity. *Biological Journal of the Linnean Society* 121(2):446-457.
15. Hrycik, A. R.#, L. Z. Almeida#, and T. O. Höök. 2017. Sub-lethal effects on fish provide insight into a biologically-relevant threshold of hypoxia. *Oikos* 126(3):307-317.
14. Kollock, R. O., K. Games#, A. E. Wilson, and J. M. Sefton. 2016. Vehicle exposure and spinal musculature fatigue in military warfighters: a meta-analysis. *Journal of Athletic Training* 51(11):981-990.
13. Munsterman, A. S.#, J. J. Kottwitz#, and R. R. Hanson. 2016. Meta-analysis of the effects of adhesion barriers on adhesion formation in the horse. *Veterinary Surgery* 45:587-595.
12. Kollock, R. O., C. Andrews, A. Johnston, T. Elliott, A. E. Wilson, K. Games#, and J. M. Sefton. 2016. A meta-analysis to determine if lower extremity muscle strengthening should be included in military knee overuse injury prevention programs. *Journal of Athletic Training* 51(11):919-926.
11. McGill, J.#, F. Adler-Baeder, and P. Rodriguez. 2016. Mindfully in love: A meta-analysis of the association

- between mindfulness and relationship satisfaction. *Journal of Human Sciences and Extension* 4(1):89-101.
- 10 Koch, R. E.#, A. E. Wilson, and G. E. Hill. 2016. The importance of carotenoid dose in supplementation studies with songbirds. *Physiological and Biochemical Zoology* 89(1):61-71.
 9. Goessling, J. M.#, H. Kennedy, M. T. Mendonça, and A. E. Wilson. 2015. A meta-analysis of plasma corticosterone and heterophil:lymphocyte ratios – Is there conservation of physiological stress responses over time? *Functional Ecology* 29:1189-1196.
 8. ArchMiller, A. A.#, E. F. Bauer#, R. E. Koch#, B. K. Wijayawardena#, A. Anil#, J. J. Kottwitz#, A. S. Munsterman#, and A. E. Wilson. 2015. Formalizing the definition of meta-analysis in *Molecular Ecology*. *Molecular Ecology* 24:4042-4051.
 7. Willoughby, J. R.#, M. Sundaram, B. K. Wijayawardena#, S. J. A. Kimble, Y. Ji, N. B. Fernandez, J. D. Antonides, M. C. Lamb, N. J. Marra, and J. A. DeWoody. 2015. The reduction of genetic diversity in threatened vertebrates and new recommendations regarding IUCN conservation rankings. *Biological Conservation* 191:495-503.
 6. Kollock, R. O., K. Games#, A. E. Wilson, and J. M. Sefton. 2015. Effects of vehicle-ride exposure on cervical pathology – a meta-analysis. *Industrial Health* 53:197-205.
 5. Games, K.#, J. M. Sefton, and A. E. Wilson. 2015. Whole-body vibration and blood flow and muscle oxygenation: a meta-analysis. *Journal of Athletic Training* 50(5):542-549.
 4. Newcomer, B. W.#, P. H. Walz, M. D. Givens, and A. E. Wilson. 2015. Efficacy of bovine viral vaccination to prevent reproductive disease: a meta-analysis. *Theriogenology* 83(2015):360-365.
 3. Havird, J. C.#, R. P. Henry, and A. E. Wilson. 2013. Altered expression of Na⁺/K⁺-ATPase and other osmoregulatory genes in the gills of euryhaline animals in response to salinity transfer: A meta-analysis of 59 quantitative PCR studies over 10 years. *Comparative Biochemistry and Physiology, Part D* 8(2):131-140.
 2. Lucier-Greer, M.# and Adler-Baeder, F. 2012. Does couple and relationship education work for individuals in stepfamilies? A meta-analytic study. *Family Relations* 61: 756–769.
 1. Logan, S. W.#, L. E. Robinson, A. E. Wilson, and W. A. Lucas. 2012. Getting the fundamentals of movement: A meta-analysis of the effectiveness of motor skill interventions in young children as assessed by the test of gross motor development. *Child: Care, Health & Development* 38(3):305-315.

PUBLICATIONS FROM NSF REU SITE (<http://wilsonlab.com/reu/>) (# UNDERGRADUATE AUTHOR)

21. Clay, M.#, J. Stoeckel, and B. Helms. 2017. The role of abiotic and biotic cues in burrow habitat selection by juvenile crayfish. *Behaviour* 154(12):1177-1196.
20. Low, L.# and C. J. Anderson. 2017. The threat of a nonnative, invasive apple snail to oligohaline marshes along the Northern Gulf of Mexico. *Journal of Coastal Research* 33(6):1376-1382.
19. Kasinak, J.-M. E., C. J. Bishop#, R. A. Wright, and A. E. Wilson. 2015. Grass carp do not consume the nuisance benthic cyanobacterium, *Lyngbya wollei*. *Journal of Aquatic Plant Management* 53:74-80.
18. Kasinak, J.-M. E., B. M. Holt#, M. F. Chislock, and A. E. Wilson. 2015. Benchtop fluorometry of phycocyanin as a rapid approach for estimating cyanobacterial biovolume. *Journal of Plankton Research* 37(1):248-257.
17. Hossain, M. J., D. Sun, D. J. McGarey, S. Wrenn, L. M. Alexander#, M. E. Martino, Y. Xing Y, J. S. Terhune, and M. R. Liles. 2014. An Asian origin of virulent *Aeromonas hydrophila* responsible for disease epidemics in United States-farmed catfish. *mBio* 5(3):e00848-14.
16. Low, L.# 2014. Wetland Invaders: Apple snail response to stress conditions. Whitman College senior thesis.
15. Nelson, T. R., D. Sutton#, and D. R. DeVries. 2014. Summer movements of the Gulf killifish (*Fundulus grandis*) in a northern Gulf of Mexico salt marsh. *Estuaries and Coasts* 37(5):1295-1300.
14. Simpson, A.#, I. Turner, E. Brantley, and B. Helms. 2014. Bank erosion hazard index as an indicator of near-bank aquatic habitat and community structure in a southeastern Piedmont stream. *Ecological Indicators* 43:19-28.
13. Chislock, M. F., K. L. Sharp#, and A. E. Wilson. 2014. *Cylindrospermopsis raciborskii* dominates under very low and high nitrogen-to-phosphorus ratios. *Water Research* 49:207-214.
12. Doster, E.#, M. F. Chislock, J. Roberts, J. Kottwitz, and A. E. Wilson. 2014. Recognition of an important water quality issue at zoos: prevalence and potential threat of toxic cyanobacteria. *Journal of Zoo and Wildlife Medicine* 45(1):168-168.

11. Hossain, M. J., G. C. Waldbieser, D. Sun, N. K. Capps, W. B. Hemstreet, K. Carlisle#, M. J. Griffin, L. Khoo, A. E. Goodwin, T. Sonstegard, S. S. Schroeder, K. Hayden, J. C. Newton, J. S. Terhune, and M. R. Liles. 2013. Implication of lateral genetic transfer in the emergence of *Aeromonas hydrophila* isolates of epidemic outbreaks in channel catfish. *PLoS ONE* 8(11):e80943.
10. Arias, C. R., K. Koenders#, and A. M. Larsen. 2013. Predominant bacteria associated with red snapper *Lutjanus campechanus* (Poey, 1860) from the northern Gulf of Mexico. *Journal of Aquatic Animal Health* 25(4):281-289.
9. Olsen, B., C. Smith, M. Chislock, J.-M. E. Kasinak, and E. Doster#. 2013. Letter to the Editor: Association for the Sciences of Limnology and Oceanography (ASLO) 2013 Annual Meeting: Students' perspectives. *ASLO Bulletin* 22(3):83-84.
8. Chislock, M. F., O. Sarnelle, B. K. Olsen, E. Doster#, and A. E. Wilson. 2013. Large effects of consumer offense on ecosystem structure and function. *Ecology* 94(11):2375-2380.
7. Chislock, M. F., E. Doster#, R. A. Zitomer#, and A. E. Wilson. 2013. Eutrophication: Causes, consequences, and controls in aquatic ecosystems. *Nature Education Knowledge* 4(4):10.
6. Wilson, A. E., M. F. Chislock, E. Doster#, R. A. Wright, J. J. Kottwitz, H. Walz, and H. Rose. 2013. Toxic algae threaten livestock health. *The Alabama Cattleman newsletter*.
5. Boardman, E.# 2013. Late-summer drawdown and invertebrate assemblages in intermittent Alabama streams. University of Vermont senior thesis. May 1, 2013. Document and Oral Defense
4. Gough, H. M.#, A. M. Gascho Landis and J. A. Stoeckel. 2012. Behaviour and physiology are linked in freshwater mussel responses to drought. *Freshwater Biology* 57(11):2356-2366.
3. Imhoff, E., M. J. Moore# and R. J. DiStefano. 2012. Introduced alien ringed crayfish (*Orconectes neglectus neglectus* [Faxon, 1885]) threaten imperiled coldwater crayfish (*Orconectes eupunctus* Williams, 1952) in the Eleven Point River drainage, Missouri, USA. *Aquatic Invasions* 7(1):129-134.
2. Moore, M. J.#, R. J. DiStefano, and E. R. Larson. 2012. An assessment of life history studies for United States and Canadian crayfishes: Identifying biases and knowledge gaps to improve conservation and management. *Freshwater Science* 32:1276-1287.
1. Stump, A. J.# 2012. Bluegill Response to Supplemental Feeding and Patch Richness in Recreational Fishing Ponds. EKU Encompass Publication.

EDITORIAL, PROGRAM MANAGEMENT, AND REVIEWING ACTIVITIES

EDITORIAL DUTIES

Nature Scientific Reports - Editorial Board (Ecology and Evolutionary Biology section) - 2014 to 2018

Harmful Algae - Editorial Board - 2017 to present

FUNDING AGENCIES

Program management

National Science Foundation

Program Director in Population and Community Ecology (many panels and proposals) - 2014 to 2016

Managed three panels for NSF Research Traineeship (NRT) program - 2014 to 2016

Managed virtual and in-person panels for the NSF Coastal SEES program - Fall 2015 to Spring 2016

Managed one panel for the NSF Graduate Research Fellowship program (GRFP) - Spring 2016

Program manager of OPUS program - 2015

Division representative for CAREER program - 2015 to 2016

Panel service (15 panels across 3 total agencies)

National Science Foundation (11 panels: Population and Community Ecology cluster (2x), Long-Term

Ecological Research (LTER) Site Visit, Research Experiences for Undergraduates (3x), Basic Research to

Enable Agricultural Development (BREAD), Ecological Biology DDIG, Graduate Research Fellowship

program (3x), EPSCoR Research Infrastructure Improvement (RII) Track-2) New York Sea Grant (1 panel)

USDA National Institute of Food and Agriculture (2 panels: Aquaculture program, Hispanic-serving

Institutions Education Grants program)

Ad-hoc proposal reviews (22 reviews across 17 total agencies/programs)

National Science Foundation (Population and Community Ecology, Ecological Biology, Ecosystem Science, BREAD, Office of Integrative Activities), Ecology and Oceanography of Harmful Algal Blooms

(ECOhab), Israeli Ministry of Science and Technology, Netherlands Organisation for Scientific Research, New York Sea Grant, North Carolina Water Resources Research Institute, Oklahoma Water Resources Research Institute, Romanian National Council for Scientific Research, Portuguese Foundation for Science and Technology, Singapore Ministry of Education, United International College, United States Geological Survey - National Institutes for Water Resources, University of Michigan Water Center, California Department of Fish and Wildlife, National Science Centre - Poland

JOURNALS (149 manuscript reviews for 59 total journals)

Acta Oecologica, African Journal of Aquatic Science, Algal Research, American Naturalist, Aquatic Ecology, Archiv für Hydrobiologie, Auburn University Journal of Undergraduate Scholarship, Biochemical Systematics and Ecology, BMC Ecology, British Journal of Environment & Climate Change, Canadian Journal of Fisheries and Aquatic Sciences, Cell Biology and Toxicology, Ecological Monographs, Ecology, Ecology Letters, Ecosphere, Ecosystems, Ecotoxicology and Environmental Safety, Environmental Management, Environmental Microbiology, Environmental Monitoring and Assessment, Environmental Pollution, Environmental Science & Technology, Environmental Science and Pollution Research, F1000Research, Freshwater Biology, Freshwater Science, Global Ecology and Biogeography, Harmful Algae, Hydrobiologia, International Journal of Limnology, Journal of Agriculture of the University of Puerto Rico, Journal of Applied Aquaculture, Journal of Applied Microbiology, Journal of Applied Phycology, Journal of Chemical Ecology, Journal of Experimental Marine Biology and Ecology, Journal of Freshwater Ecology, Journal of Great Lakes Research, Journal of Natural Resources Education, Journal of Phycology, Journal of Plankton Research, Journal of Sea Research, Journal of Water and Health, Lake and Reservoir Management, Lakes and Reservoirs: Research and Management, Limnologica, Limnology and Oceanography, Livestock Science, Marine Drugs, Marine Ecology Progress Series, Microbial Ecology, Oecologia, Oikos, PLoS ONE, Science of the Total Environment, Studies in Higher Education, Water Research

OTHER REVIEWING ACTIVITIES

Technical Qualifications Board review for US EPA scientist - 2018

Administrative review of Dr. Royrickers Cook, Associate Provost and VP for Univ Outreach - 2017-2018

Tenure and promotion dossier reviews - 2017- 2018

Dissertation review for PhD student at National University of Sciences and Technology in Pakistan - 2016

US EPA Numeric nutrient criteria for lakes and reservoirs of the continental US report review - 2016

INVITED RESEARCH PRESENTATIONS

- 2019 Wayne State University, Department of Biological Sciences. Detroit, Michigan.
- 2018 MTA ÖK Balatoni Limnológiai Intézet. Tihany, Hungary
- 2018 Centro de Estudios Ambientales de Cienfuegos. NSF PIRE workshop. Cienfuegos, Cuba.
- 2018 Nanjing Normal University, School of Biological Sciences. Nanjing, China.
- 2018 U.S. Environmental Protection Agency, Region 4 Harmful Algal Bloom Southeastern Regional Workshop. Atlanta, Georgia.
- 2018 U.S. Environmental Protection Agency, Region 4 EPA Numeric Nutrient Criteria Technical Workshop. Atlanta, Georgia.
- 2018 Alabama Department of Environmental Management, Surface water program. Montgomery, Alabama.
- 2018 Georgia Southern University, Department of Biology, Statesboro, Georgia.
- 2018 Baylor University, Department of Biology, Waco, Texas.
- 2017 University of Alabama at Tuscaloosa, Water Research group. Tuscaloosa, Alabama.
- 2017 Alabama Department of Environmental Management, Surface water program. Montgomery, Alabama.
- 2017 Annual catfish update meeting, Auburn University, Demopolis, Alabama.
- 2016 Certified Crop Advisor meeting, Soil and Water Session. Auburn, Alabama.
- 2016 U.S. Environmental Protection Agency, Region 4. Atlanta, Georgia.
- 2016 University of Alabama at Birmingham, Department of Biology and Physics. Birmingham, Alabama.
- 2016 Alabama Water and Wastewater Institute, technical training program. Point Clear, Alabama.
- 2016 Alabama Department of Environmental Management, Surface water program. Montgomery, Alabama.
- 2016 Annual catfish update meeting, Auburn University, Demopolis, Alabama.
- 2016 Annual Arkansas Water Resources Meeting, University of Arkansas. Fayetteville, Arkansas.

- 2016 Auburn University Interdisciplinary Studies Program, Auburn University. Auburn, Alabama.
- 2016 University of Oklahoma, Environmental Studies Program. Norman, Oklahoma.
- 2016 U.S. Environmental Protection Agency, Region 10, Harmful Algal Bloom workshop. Seattle, WA.
- 2016 Alabama Rural Water Association, Annual meeting. Mobile, Alabama.
- 2016 Kennesaw State University, Department of Biology and Physics. Kennesaw, Georgia.
- 2015 Alabama Department of Environmental Management, Surface water program. Montgomery, Alabama.
- 2015 Blandy Experimental Farm, University of Virginia. Boyce, Virginia.
- 2015 Smithsonian Environmental Research Center. Edgewater, Maryland.
- 2014 U.S. Environmental Protection Agency, Region 4, Numeric Nutrient Criteria Workshop. Atlanta, GA.
- 2013 National Science Foundation, Division of Environmental Biology. Arlington, Virginia.
- 2013 Global Research Institute, University of North Carolina at Chapel Hill. Chapel Hill, North Carolina.
- 2012 North Carolina A&T University, Department of Animal Science. Greensboro, North Carolina.
- 2012 Tuskegee University, Department of Agricultural Sciences. Tuskegee, Alabama.
- 2012 Nanjing Normal University, School of Biological Sciences. Nanjing, China.
- 2012 University of West Georgia, Department of Biology. Carrollton, Georgia.
- 2012 Auburn University, Biosystems Engineering Department. Auburn, Alabama.
- 2012 Columbus State University, Department of Biology. Columbus, Georgia.
- 2012 37th Great Plains Limnology Conference, University of Arkansas. Fayetteville, Arkansas.
- 2012 Association of Southeastern Biologists, University of Georgia. Athens, Georgia.
- 2012 Jackson Lake Homeowners Association. Covington, Georgia.
- 2012 Purdue University, Department of Forestry and Natural Resources. West Lafayette, Indiana.
- 2011 XIII Brazilian Meeting of Limnology. Natal, Brazil.
- 2011 Florida Atlantic University, Department of Biology. Boca Raton, Florida.
- 2011 The Evergreen State College, Environmental Studies. Olympia, Washington.
- 2011 Olympia Film Society, Environmental Movie Festival. Olympia, Washington.
- 2011 Southeastern Ecology and Evolution Conference, Keynote, Auburn University. Auburn, Alabama.
- 2010 University of Notre Dame, Department of Biological Sciences. South Bend, Indiana.
- 2010 Tuskegee University, Department of Agricultural Sciences. Tuskegee, Alabama.
- 2010 University of West Alabama, Department of Biological Sciences. Livingston, Alabama.
- 2009 Purdue University, Department of Forestry and Natural Resources. West Lafayette, Indiana.
- 2009 Auburn University, Department of Biological Sciences. Auburn, Alabama.
- 2008 University of Georgia, Odum School of Ecology. Athens, Georgia.
- 2007 University of Miami, Rosenstiel School of Marine and Atmospheric Science. Miami, Florida.
- 2007 Florida International University, Department of Biological Sciences. Miami, Florida.
- 2007 Michigan State University, Kellogg Biological Station. Hickory Corners, Michigan.
- 2007 Grand Valley State University, Annis Water Resources Institute. Muskegon, Michigan.
- 2007 Auburn University, Department of Fisheries and Allied Aquacultures. Auburn, Alabama.
- 2006 NOAA Great Lakes Environmental Research Laboratory. Ann Arbor, Michigan.
- 2006 University of Waterloo, School of Biology. Waterloo, Ontario.
- 2006 Georgia Institute of Technology, IGERT Signals in the Sea seminar series. Atlanta, Georgia.

INVITED TEACHING PRESENTATIONS (IN ADDITION TO NORMAL TEACHING LOAD)

- 2019 Auburn University, School of Fisheries, Aquaculture, and Aquatic Sciences, Auburn, Alabama
Course: Dimensions in Fisheries, Aquaculture, and Aquatic Sciences. Lecture topic: Causes, controls, and consequences of eutrophication
- 2018 Auburn University, College of Agriculture, Auburn, Alabama
Course: Introduction to Agriculture course. Lecture topic: Causes, controls, and consequences of eutrophication
- 2018 Auburn University, Department of Crop, Soil, and Environmental Sciences, Auburn, Alabama
Course: Environmental Science course. Lecture topic: Causes, controls, and consequences of eutrophication
- 2017 Auburn University, School of Fisheries, Aquaculture, and Aquatic Sciences, Auburn, Alabama

- Course: Careers and Orientation in Fisheries. Lecture topic: NSF Research Experiences for Undergraduates program
- 2017 Auburn University, School of Fisheries, Aquaculture, and Aquatic Sciences, Auburn, Alabama
Course: Careers in Fisheries. Lecture topic: Research in the WilsonLab
- 2017 Auburn University, Department of Crop, Soil, and Environmental Sciences, Auburn, Alabama
Course: Environmental Science course. Lecture topic: Causes, controls, and consequences of eutrophication
- 2017 Auburn University, Department of Biological Sciences, Auburn, Alabama
Course: Marine Biology Learning Community course. Lecture topic: Eutrophication: causes, controls, and consequences
- 2017 Auburn University, Auburn Global program.
Course: Auburn Global course. Lecture topic: NSF organizational structure, funding opportunities, and tips for success
- 2017 Auburn University, College of Agriculture
Workshop: Funding tips for the National Science Foundation.
- 2017 Kentucky-Tennessee Water Environment Association hour-long webinar from Auburn University. Auburn, Alabama. Lecture title: Do harmful algal blooms threaten freshwater resources in the southeastern U.S.?
- 2016 Auburn University, Department of Biological Sciences, Auburn, Alabama
Course: Marine Biology Learning Community course. Lecture topic: Eutrophication: causes, controls, and consequences
- 2016 Auburn University, Honors College. Auburn, Alabama.
Lecture topic: NSF graduate fellowship discussion
- 2016 University of Oklahoma, Environmental Studies program. Norman, Oklahoma.
Course: Limnology. Lecture topic: Are harmful algal blooms a threat to U.S. freshwater lakes?
- 2015 Auburn University, Department of Biological Sciences, Auburn, Alabama
Course: Marine Biology Learning Community course. Lecture topic: Eutrophication: causes, controls, and consequences
- 2015 Purdue University, Department of Forestry and Natural Resources. West Lafayette, Indiana.
Course: Graduate Professional Development course. Lecture topic: NSF organizational structure, funding opportunities, and tips for success
- 2015 Auburn University, Biggio Center for the Enhancement of Teaching and Learning
Course: Preparing Future Faculty program. Lecture topic: NSF organizational structure, funding opportunities, and tips for success
- 2013 Purdue University, Honors College. West Lafayette, Indiana.
Course: The Sustainability Project. Lecture topic: Consequences of eutrophication in freshwater ecosystems.
- 2013 Auburn University, Honors College. Auburn, Alabama.
Lecture topic: NSF and EPA STAR graduate fellowship discussion
- 2012 Auburn University, Biggio Center for the Enhancement of Teaching and Learning
Course, Preparing Future Faculty program. Auburn, Alabama. Lecture topic: Institutional roles and responsibilities
- 2012 Auburn University, Department of Biological Sciences, Auburn, Alabama
Course: Marine Biology Learning Community course. Auburn, Alabama. Lecture topic: Eutrophication: causes, controls, and consequences
- 2012 Auburn University, Honors College. Auburn, Alabama.
Lecture topic: NSF and EPA STAR graduate fellowship discussion
- 2012 Auburn University, Honors College. Auburn, Alabama.
Course: Honors Lyceum: Research at Auburn. Lecture topic: Aquatic ecology in the WilsonLab
- 2012 Auburn University, College of Agriculture. Auburn, Alabama.
Course: Graduate Student Teaching Practicum. Lecture topic: Research program development
- 2012 Auburn University, College of Agriculture. Auburn, Alabama.
Course: Graduate Student Teaching Practicum. Lecture topic: Resume development and critique
- 2011 Purdue University, Department of Forestry and Natural Resources. West Lafayette, Indiana.

- Course: Great Lakes Science and Management. Lecture topic: Eutrophication: causes, controls, and consequences
- 2010 Florida Department of Environmental Protection, webinar from Auburn University. Auburn, Alabama. Lecture topic: Water quality and human health
- 2010 Auburn University, Department of Fisheries and Allied Aquacultures. Auburn, Alabama. Course: Careers in Fisheries. Lecture topic: How to prepare for and succeed in graduate school
- 2009 Auburn University, Department of Fisheries and Allied Aquacultures. Auburn, Alabama. Program: USDA Chinese aquaculture exchange. Lecture topic: Limnology and aquaculture: eutrophication and cyanobacterial blooms
- 2009 Auburn University, Department of Fisheries and Allied Aquacultures. Auburn, Alabama. Course: Introduction to Fisheries. Lecture topic: Aquatic community ecology
- 2008 Auburn University, Department of Fisheries and Allied Aquacultures. Auburn, Alabama. Course: Introduction to Fisheries. Lecture topic: Aquatic community ecology
- 1999 Michigan State University, Department of Fisheries and Wildlife. East Lansing, Michigan. Course: Introduction to Fisheries and Wildlife. Lecture topic: Lake trout biology and ecology
- 1998 Michigan State University, Department of Fisheries and Wildlife. East Lansing, Michigan. Course: Introduction to Fisheries and Wildlife. Lecture topic: Lake trout biology and ecology

POSTDOC AND GRADUATE STUDENT ADVISEMENT

POSTDOC ADVISOR FOR

Arevik Minasyan	Fulbright Fellow	UNESCO-Armenia	Fall 2016 to Fall 2017
Zhen Yang	Postdoc Fellow	China Scholarship	Fall 2016 to Fall 2017

PRINCIPAL ADVISOR FOR

Angelea Belfiore	Masters	Fisheries	Fall 2019 (planned)
Riley Buley	Doctoral	Fisheries	Fall 2017 to present
Michael Chislock	Doctoral	Fisheries	Summer 2008 to Spring 2016 (M.S. and Ph.D. completed)
Edna Fernandez	Doctoral	Fisheries	Fall 2016 to present
Matt Gladfelter	Masters	Fisheries	Fall 2018 to present
Jo-Marie Kasinak	Masters	Biological Sciences	Spring 2012 to Fall 2013 (completed)
RajReni Kaul	Masters	Fisheries	Summer 2008 to Summer 2011 (completed)
Brie Olsen	Masters	Fisheries	Fall 2012 to Spring 2015 (completed)

COMMITTEE MEMBER FOR

Spencer Cruz	Masters	Biology (Columbus State Univ.)	Summer 2018 to present
Justin Havird	Doctoral	Biological Sciences	Spring 2011 to Spring 2014 (completed)
Kyle Heine	Doctoral	Biological Sciences	Fall 2018 to present
Katherine Hooker	Doctoral	Biology (Oklahoma)	Spring 2016 to present
Andrew Landis	Doctoral	Fisheries	Fall 2009 to Spring 2013 (completed)
Hanyan Li	Doctoral	Civil & Env. (Utah) Engineering	Fall 2016 to present
Samuel Logan	Doctoral	Kinesiology	Summer 2011 to Summer 2012 (completed)
Riley Lovejoy	Doctoral	Biological Sciences (Univ of Alabama)	Fall 2017 to present
Kathleen Morrow	Doctoral	Biological Sciences	Spring 2008 to Fall 2011 (completed)
Craig Roberts	Masters	Fisheries	Fall 2010 to Summer 2012 (completed)
Caitlin Sweeney	Masters	Crop, Soil, and Env Science	Summer 2018 to present
Pandora Wadsworth	Masters	Fisheries	Spring 2017 to Spring 2018 (completed)
Ryan Weaver	Doctoral	Biological Sciences	Spring 2014 to Summer 2018 (completed)
Stephen Woodard	Masters	Fisheries	Fall 2009 to Spring 2011 (completed)

INTERNATIONAL GRADUATE STUDENT VISITOR MENTOR FOR

Mário Barros Doctoral candidate Federal University of Ceará (Brazil) Spring 2017 to Summer 2018 (completed)

UNDERGRADUATE STUDENT ADVISEMENT

NSF RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU) AT AUBURN UNIVERSITY

Zachary Davenport	Gallaudet University	Biology major	Summer 2018
Serra Martin	Gadsden State C.C.	General science	Summer 2018
Sarah Leinbach	University of Maryland	Biology major	Summer 2018
Emily Waller	Rochester Inst. of Tech.	Biology major	Summer 2018
Bethany Pierce	NW OK State Univ.	Biology major	Summer 2018
Anthony Scott	Livingstone College	Animal Science major	Summer 2013
Leslie Pope	North Georgia College	Biology major	Summer 2013
Crystal Bishop	Young Harris College	Biology major	Summer 2013
Brittany Holt	Tuskegee Univ	Microbiology major	Summer 2012
Rachel Zitomer	Humboldt State Univ	Ecology major	Summer 2012
Katie Sharpe	Univ of West Alabama	Marine Biology major	Summer 2011
Kristin Peck	Smith College	Biology major	Summer 2010
Patricia Bradley	Tuskegee Univ	Animal science major	Summer 2010

NATIONAL SCIENCE FOUNDATION

Zulema Osorio	Solano Comm. College	General Science	Summer 2015
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AUBURN UNIVERSITY

LeeAnn Johnston	Auburn Univ	Biosystems Eng. major	Spring 2017 to present
Brynn Garner	Auburn Univ	Integrative Biology major	Fall 2018 to present
Catie Adams	Auburn Univ	Natural Resources major	Fall 2018 to present
Maddie Grace	Auburn Univ	Organismal Biology major	Fall 2018 to present
Darby Dubose	Auburn Univ	Animal Science major	Fall 2018 to present
Gillian Ash	Auburn Univ	Animal Science major	Summer 2018
Justin Fausnight	Auburn Univ	Wildlife Ecology major	Summer 2018
Dillon Taylor	Auburn Univ	Biosystems Eng. major	Spring 2018 to Summer 2018
Jaliyl Collins	Auburn Univ	Natural Resources major	Summer 2018
Kaitlyn Baker	Auburn Univ	Marine Biology major	Spring 2018 to Summer 2018
AnaSara Kipp	Auburn Univ	Fisheries major	Spring 2018
Harris Pride	Auburn Univ	Civil Engineering major	Spring 2018
Trevor Kirkland	Auburn Univ	Fisheries major	Fall 2017 to Spring 2018
Soorya Rajendran	Auburn Univ	Pre-med major	Summer 2017 to Spring 2018
Austin Holley	Auburn Univ	Integrative Biology major	Fall 2017
Chase Woods	Auburn Univ	Animal Science major	Fall 2016 to Fall 2017
Madeline Burton	Auburn Univ	Marine Biology major	Summer 2017 to Fall 2017
Bettina Welz	German DAAD RISE	Aquatic Ecology major	Summer 2017 to Fall 2017
Nadia Bowles	Tuskegee Univ	Animal science major	Spring 2017
Austin Johnson	Auburn Univ	Civil Eng. major	Spring 2017
Katelyn McWhirter	Auburn Univ	Animal Science major	Fall 2016
Jess Choi	Auburn Univ	Integrative Biology major	Summer 2014 to Fall 2016
Jenny Isham	Auburn Univ	Animal Science major	Spring 2014 to Fall 2016
Eric Wittig	Auburn Univ	Fisheries major	Fall 2015 to Spring 2016
Courtney Andes	Auburn Univ	Marine Biology major	Fall 2015
Anja Rebelein	German DAAD RISE	Aquatic Ecology major	Summer 2014
Matthew Cobb	Auburn Univ	Communications major	Spring 2014 to Summer 2014

Laurel Roberts	Auburn Univ	Microbiology major	Fall 2013 to Spring 2014
Donald Ward	Auburn Univ	Zoology major	Summer 2013 to Spring 2014
Mike Amat	Auburn Univ	Microbiology major	Fall 2013
Enrique Doster	Auburn Univ	Animal Science major	Fall 2011 to Fall 2013
Ross Bonner	Auburn Univ	Microbiology major	Fall 2012 to Spring 2013
Matthew Schenone	Auburn Univ	Business major	Fall 2012
Catherine Priester	Auburn Univ	Engineering major	Fall 2011 to Summer 2012
Sydney Stewart	Auburn Univ	Animal Science major	Fall 2011 to Spring 2012
Vernon Anderson	Auburn Univ	Microbiology major	Fall 2010 to Spring 2012
Sade Greene	Tuskegee Univ	Environmental major	Fall 2011
Micaela Sandoval	Auburn Univ	Microbiology major	Fall 2010 to Fall 2011
Erin Schmale	Auburn Univ	Microbiology major	Fall 2010 to Summer 2011
Lauren Jernigan	Auburn Univ	Zoology major	Spring 2010 to Summer 2011
Kristin Adamson	Auburn Univ	Wildlife major	Spring 2008 to Summer 2010
Steven Cason	Auburn Univ	Wildlife major	Spring 2010 to Summer 2010
Nathan Campbell	Auburn Univ	Geology major	Fall 2007 to Spring 2009
Erin Cash	Auburn Univ	Fisheries major	Spring 2009 to Fall 2009
MacGyver Buck	Auburn Univ	Fisheries major	Spring 2008 to Summer 2008
Ashley Wilson	Auburn Univ	Zoology major	Spring 2008
Adam Wilkins	Auburn Univ	Business major	Spring 2008

UNIVERSITY OF MICHIGAN/NOAA HOLLINGS FELLOW

Erin Sedgman	Western Michigan Univ	Engineering major	Summer 2006
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GEORGIA INSTITUTE OF TECHNOLOGY

Jamie Nguyen	Georgia Tech	Biology major	Fall 2003 to Spring 2004
Meryl Mims	Georgia Tech	Biology major	Fall 2003 to Spring 2004
Whitney Wilson	Columbia Univ	Art History major	Summer 2003

MICHIGAN STATE UNIVERSITY

Bethany Hanna	Michigan State Univ	Zoology major	Summer 2000
Tomoko Toda	Michigan State Univ	Zoology major	Summer 2000
Justin Chiotti	Michigan State Univ	Fisheries and Wildlife	Summer 2000

HIGH SCHOOL STUDENT ADVISEMENT

NSF RESEARCH ASSISTANTSHIPS FOR HIGH SCHOOL STUDENTS (RAHSS) AT AUBURN UNIVERSITY

Kayannush Pillai	Auburn H.S.	Summer 2012
Kiunte Dowdell	Edward Bell H.S.	Summer 2009 & 2010
Jacarris McCall	Calhoun County H.S.	Summer 2009
Devin Tolliver	Calhoun County H.S.	Summer 2009

TEACHING EXPERIENCES

COURSES

- 2008 - 2014, Limnology - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences
'17-'19 Updated required core course and lab for all departmental undergraduates
- 2010, '12, '14, Meta-analysis - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences
'16, '18-'19 Developed graduate level course to introduce students to the concepts and limitations of meta-analysis. This course has produced 25 peer-reviewed journal articles led by students with at least 5 other manuscripts currently in review.
- 2013 Water in our World - University of North Carolina at Chapel Hill - Institute for the Environment
Seminar involving international experts on water related topics

- 2012 Preparing for a career in academia - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences; Developed course aimed at preparing graduate students for academic careers
- 2010 - 2012 Limnology in Vietnam - Can Tho University, Can Tho City, Vietnam
Developed two-week short course for twenty to thirty Vietnamese undergraduate students
- 2011 Ecological genetics - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences
Developed graduate level seminar to introduce students to the field of ecological genetics
- 2011 Graduate student teaching practicum - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences; Developed graduate level course to prepare students for successful careers as educators
- 2010 Zooplankton population dynamics - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences; Developed independent study for undergraduate student
- 2010 Metabolic theory of phytoplankton - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences; Developed independent study for undergraduate student
- 2008 - 2009 Seminar - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences
Organized 15 seminars with scientists from several institutions and federal agencies
- 2008 Special topics in Fisheries - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences
Supervised graduate student on independent project focusing on LED light effects on phytoplankton primary production at night
- 2008 Plankton dynamics - Auburn University - Fisheries, Aquaculture, and Aquatic Sciences
Developed independent study for undergraduate student
- 2007 Great Lakes Science and Management - University of Michigan - School of Natural Resources
Co-organizer of new graduate course introducing to the complexities of managing the Great Lakes

TEACHING ASSISTANT

- 2001 Introduction to Biology - Georgia Institute of Technology - Biology
Prepared and instructed biology laboratory exercises
- 2001 Study Abroad: Environmental Management in Northwestern Australia
Michigan State University - Fisheries and Wildlife & Resource Development
Organized, supervised, and taught twelve undergraduates
- 1999 Limnological and Fisheries Techniques - Michigan State University - Fisheries and Wildlife
Developed and taught several laboratory and field learning exercises
- 1999 Field Ecology - Michigan State University - Kellogg Biological Station
Co-instructed intensive summer field ecological course
- 1996 Introductory Biology - University of North Carolina at Chapel Hill - Biology
Assisted with laboratory preparation and projects

OUTREACH

- 2005 - present Freely share cultures of cyanobacteria and *Daphnia* with scientists around the world
- 2011 - present Presented scientific lecture about aquatic foodwebs and their managements to daycares and prisons
- 2011 - 2017 Served as an expert witness to support a non-profit law firm defending the Ogeechee Riverkeeper related to a large fish kill on the river associated with industrial discharge
- 2015 - 2018 Participated in workshop organized by the Alabama Department of Environmental Management to educate state-wide water utilities about risks associated with cyanobacterial blooms in drinking water.
- 2017 - 2018 Participated in the Lee County Water Festival to teach hundreds of 4th graders about the importance of aquifers
- 2017 - 2018 Participated in outreach event led by the College of Agriculture's USDA-funded Science in Agriculture, Food and the Environment (S.A.F.E.) program to teach under-represented middle school students about freshwater plankton
- 2016 - 2017 Participated in outreach event led by College of Agriculture faculty and administrators to support Auburn University faculty how to write successful NSF proposals
- 2019 Organized a water quality workshops in west Alabama aimed at training catfish farmers in phytoplankton enumeration

- 2018 Led outreach event to help faculty prepare successful proposals to the NSF CAREER program
- 2017 Participated in outreach event led by REU Site PIs during the This is Research Symposium to train other Auburn University faculty how to write successful REU proposals and run effective REU programs
- 2017 Participated in a day-long Girl Scouts event aimed at educating the troop about water resources. program targeting incoming under-represented minority freshmen.
- 2017 Led discussion about undergraduate research opportunities for College of Sciences and Mathematics program targeting incoming under-represented minority freshmen.
- 2016 Led plankton-focused outreach event for twenty 6-7 year-olds participating in summer camp at Lee-Scott School
- 2016 Led two-week NSF Outreach Days tour of 12 minority serving institutions, including 7 tribal colleges, 3 HBCUs, and 2 HSIs, throughout the central US.
- 2016 Participated in ESA workshop organized by the Early Career Ecologist and Undergraduate Institutions Sections to share information about serving as an NSF rotator, panelist, and reviewer.
- 2015 Led NSF Outreach events at 2 minority serving institutions and one international conference
- 2015 ESA meeting session co-organizer with Drs. Henry Gholz and Daniel Stover; session title "Federal agency networking" including 36 representatives from 12 federal agencies.
- 2015 Webinar speaker associated with cyanobacterial bloom discussion mediated California State Water Resource Control Board, included many state and federal agency scientists and policy makers
- 2015 Participated in outreach event led by REU Site PIs to train other Auburn University faculty how to write successful REU proposals and run effective REU programs
- 2011 - 2014 Developed prison seminar series called Sparks in Science (8 seminars during Spring 2012, 12 seminars during Spring 2013, and 9 seminars during Spring 2014)
- 2014 Webinar speaker associated with cyanobacterial bloom discussion mediated by Resource Media and the National Wildlife Federation
- 2014 Instructor at Troy University-Dothan Wiregrass Math, Science, Technology, and Leadership Academy; developed and conducted aquatic ecology workshop for elementary school teachers
- 2012 - 2014 Organized five water quality workshops (Orlando, FL, Chapel Hill, NC, and Auburn, AL) aimed at training state agency scientists in water quality sampling and analyses, including phytoplankton enumeration
- 2013 Participated in IAGLR educator day during the IAGLR conference
- 2012 Trained scientist from the Florida Fish and Wildlife Conservation Commission in phytoplankton enumeration
- 2012 Gave invited seminar about algal blooms and silt issues in Jackson Lake, Georgia, to Jackson Lake Homeowners Association with representatives from Georgia Power and Georgia EPD.
- 2012 Outreach activities at Montgomery Zoo describing aquatic ecology and water quality
- 2011 Led two discussions linking water quality and ecology with under-represented youths from Birmingham, Alabama, through Birmingham Water Authority outreach program
- 2011 Trained scientist from the University of Puerto Rico in phytoplankton enumeration
- 2011 Organized sessions educating undergraduate students about research experiences on and off-campus
- 2011 Worked with National Geographic photographer (Peter Essick) on eutrophication story
- 2010 Made available a simple, web-based model to predict blooms of algae and cyanobacteria in Alabama - <http://wilsonlab.com/forecasting.html>
- 2010 Developed large-scale collaboration with state agency scientists from Alabama, Florida, Tennessee, Georgia, and Kentucky to develop algal bloom forecasting models throughout southeastern US
- 2010 Created presentation to showcase NSF REU program that was shared with NSF program officers so that they could broadly distribute the presentation to other universities
- 2010 Served as an expert witness to support a non-profit law firm defending the development of a coal-fired power plant on a Georgia river
- 2010 Served as an expert witness to support the Montgomery Police Department on a suspected child drowning case
- 2010 Trained a scientist from the Tennessee Department of Environment and Conservation in water quality sampling and analysis