

MICHAEL F. CHISLOCK

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EDUCATION

Auburn University - Auburn, AL; Advisor: Dr. Alan Wilson
Ph.D., Fisheries, Aquaculture, and Aquatic Sciences (Expected Completion May 2016)
Dissertation: *Consumer adaptation mediates top-down regulation of ecosystems across a nutrient gradient*
2011 - M.S., Fisheries and Allied Aquacultures
Thesis: *Toxic cyanobacteria and plant defenses against a generalist herbivore*
Clarion University - Clarion, PA; Advisor: Dr. Andrew Turner
2008 - B.S., Biology, Minor in Chemistry, Honors Program – *Summa cum laude*
Thesis: *Nutrient pollution impairs the sensory abilities of freshwater animals*

PROFESSIONAL EXPERIENCE

2008 - present Research Assistant – Auburn University, School of Fisheries, Aquaculture, and Aquatic Sciences
2005-2008 Summer National Science Foundation (NSF) Research Internship (Aquatic Ecology) – Clarion University (Department of Biology) and the Pymatuning Laboratory of Ecology
2005 Research Internship – U.S. Forest Service and Clarion University (Department of Biology), survey of rare and endangered fish in the Allegheny National Forest

TEACHING EXPERIENCE

2015 - 2016 Instructor-of-record, Limnology – Auburn University, School of Fisheries, Aquaculture, and Aquatic Sciences
2015 - 2016 Instructor-of-record, Limnology Lab – Auburn University, School of Fisheries, Aquaculture, and Aquatic Sciences
2014 Preparing Future Faculty Program - Biggio Center for the Enhancement of Teaching and Learning, Auburn University
2012 Teaching Assistant, Freshwater Ecology – Can Tho University. Assisted teaching a two-week intensive course in freshwater ecology to 12 Vietnamese undergraduate students at Can Tho University, Viet Nam.
2008 - 2014 Teaching Assistant, Limnology – Auburn University, Department of Fisheries and Allied Aquacultures
2004 - 2008 Undergraduate Lab Assistant – Clarion University, Department of Biology

OUTREACH

2014 Aquatic ecology for elementary school teachers (Troy State-Dothan) (co-taught)
2014 Water quality and algae in ponds workshop (4H students, Opelika, AL) (co-taught)
2011 - 2012 Water quality education program (Montgomery Zoo)
2009 - 2010 High School Educational Outreach Program – mentored 3 minority high school students from the Black Belt region in AL
2009 Aquatic Ecology for Families (Callaway Gardens) (co-taught)

RESEARCH GRANTS AND ACADEMIC AWARDS (TOTAL \$134,650)

2011-2014	EPA STAR Graduate Fellowship, \$126,000
2012	Harry Merriwether Fellowship, \$2,000
2012	Auburn University Thesis/Dissertation Research Award, \$500
2012	Best Student Talk (Southeastern Lake and Watershed Management Conference), \$100
2011	Auburn University Outstanding Master's Student Award
2011	American Society for Limnology and Oceanography Student Travel Award, \$500
2011	Auburn University Graduate Student Travel Award, \$500
2011	Auburn University College of Science and Mathematics Travel Award, \$250
2011	American Fisheries Society Student Travel Award, \$100
2010	Auburn University Graduate Student Travel Award, \$300
2009	Auburn University Thesis and Dissertation Award, \$1,000
2008	Sigma Xi Grant-in-Aid of Research (GIAR), \$1,000
2007	Barry M. Goldwater Scholarship (Honorable Mention)
2007	Sigma Xi GIAR, \$1,000
2006	Clarion University Undergraduate Research Grant, \$1,000
2006	Clarion University Undergraduate Research Grant, \$400

PUBLICATIONS (PEER-REVIEWED) (* UNDERGRADUATE AUTHOR)

- 1) Kasinak, J.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: 247-257.
 - 2) **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.
 - 3) *Doster, E., **M.F. Chislock**, J.F. Roberts, J.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: 174-177.
 - 4) **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: 2375-2380.
 - 5) **Chislock, M.F.**, *E. Doster, *R. A. Zitomer, and A.E. Wilson. 2013. Eutrophication: causes, consequences, and controls in aquatic ecosystems. *Nature Education* 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 Cattlemen* June 2013: 16-17.
 - 7) **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: 1961-1970.
 - 8) Turner, A.M. and ***M.F. Chislock**. 2010. Blinded by the stink: nutrient enrichment impairs the perception of predation risk by freshwater snails. *Ecological Applications* 20: 2089-2095.
 - 9) Turner, A.M. and ***M.F. Chislock**. 2007. Dragonfly predators influence biomass and density of pond snails. *Oecologia* 153: 407-415.
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MANUSCRIPTS IN REVIEW (* UNDERGRADUATE AUTHOR)

- 1) **Chislock, M.F.** Ecology and management of off flavors and cyanotoxins. Lakeline.
 - 2) Olsen, B.K., **M.F. Chislock**, and A.E. Wilson. Eutrophication mediates a common off-flavor compound, 2-methylisoborneol, in a drinking water reservoir. *Water Research*.
 - 3) Olsen, B.K., **M.F. Chislock**, *A. Rebelein, and A.E. Wilson. Mixing and nutrient addition influence MIB and geosmin in a drinking water reservoir. *Water Research*.
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MANUSCRIPTS IN PREPARATION (* UNDERGRADUATE AUTHOR)

- 1) **Chislock, M.F.**, O. Sarnelle, *L.M. Jernigan, *V.R. Anderson, and A. Abebe, and A.E. Wilson. Consumer adaptation mediates top-down regulation of ecosystems across a productivity gradient. Targeted for Science.
 - 2) **Chislock, M.F.**, R.B. Kaul, O. Sarnelle, and A. E. Wilson. Rapid evolution in *Daphnia* in response to nutrient enrichment and effects on phytoplankton biomass. Targeted for Freshwater Biology.
 - 3) **Chislock, M.F.**, O. Sarnelle, and A. E. Wilson. Intraspecific variation in lake *Daphnia* affects the response of phytoplankton biomass and a cyanotoxin to fertilization. Targeted for Ecological Applications.
 - 4) **Chislock, M.F.**, *A. Rebelein, and A.E. Wilson. Effects of nitrogen-to-phosphorus ratio on microcystin concentrations across a productivity gradient: an experimental test. Targeted for Water Research.
 - 5) **Chislock, M.F.** and A.E. Wilson. Functional redundancy among cyanobacteria-tolerant *Daphnia*. Targeted for Oikos.
 - 6) Kaul, R.B., **M.F. Chislock**, *K.A. Adamson, G.M. Curvin, and A.E. Wilson. Predicting toxic cyanobacteria throughout the southeastern U.S. Targeted for Canadian Journal of Fisheries and Aquatic Sciences.
 - 7) Roberts, J.F., **M.F. Chislock**, and A.E. Wilson. Copper-induced mortality in cattle. Targeted for Journal of Diagnostic Investigation.
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INVITED BOOK CHAPTERS

- 1) Wilson, A.E. and **M.F. Chislock**. 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.
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OTHER PUBLICATIONS

- 1) Olsen, B., C. Smith, **M.F. Chislock**, J. Kasinak, and E. Doster. 2013. Letter to the Editor: Association for the Sciences of Limnology and Oceanography (ASLO) 2013 Annual Meeting: Student's perspectives. ASLO Bulletin 22: 84-84.
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CONFERENCE PRESENTATIONS (* UNDERGRADUATE STUDENT)

Best student talk

- 1) Olsen, B.K., **M.F. Chislock**, A. Gamble, D. Hilyer, K. Mendenhall, W. Thornton, and A.E. Wilson. 2014. Interactions between nitrogen concentration and nitrogen-to-phosphorus ratio mediate off-flavor in a drinking water reservoir. Oral presentation. Joint Aquatic Sciences Meeting.
- 2) Doster, E. **M.F. Chislock**, J.F. Roberts, J.J. Kottwitz, and A.E. Wilson. 2014. Recognition of an important water quality issue at zoos: prevalence and potential threat of toxic cyanobacteria. Oral presentation. American Association of Zoo Veterinarians.
- 3) **Chislock, M.F.**, *V.R. Anderson, O. Sarnelle, and A.E. Wilson. 2013. Large effects of consumer offense on ecosystem structure and function. Oral presentation. Ecological Society of America.
- 4) **Chislock, M.F.**, *V.R. Anderson, O. Sarnelle, and A.E. Wilson. 2013. Large effects of consumer offense on ecosystem structure and function. Oral presentation. Auburn University Graduate Scholars Forum.
- 5) **Chislock, M.F.**, *K.G. LeMay, and A.E. Wilson. 2013. Ecological stoichiometry and the control of harmful cyanobacterial blooms: an empirical test of a well-established tenet. International Association for Great Lakes Research Meeting.
- 6) **Chislock, M.F.**, *V.R. Anderson, O. Sarnelle, and A.E. Wilson. 2012. Consequences of nutrient enrichment and herbivore adaptation to toxic cyanobacteria for phytoplankton in lakes. Oral presentation. Great Plains Limnology Conference.

- 7) **Chislock, M.F.**, *V.R. Anderson, O. Sarnelle, and A.E. Wilson. 2012. Consequences of nutrient enrichment and herbivore adaptation for phytoplankton in lakes. Oral presentation. Auburn University Graduate Scholars Forum.
- 8) ***Chislock, M.F.**, *V.R. Anderson, O. Sarnelle, and A.E. Wilson. 2012. Consequences of nutrient enrichment and herbivore adaptation to toxic cyanobacteria for phytoplankton in lakes. Oral presentation. Southeastern Lake and Watershed Management Conference.
- 9) **Chislock, M.F.**, *V.R. Anderson, O. Sarnelle, and A.E. Wilson. 2012. Resource edibility and herbivore effects on phytoplankton across a nutrient gradient. Oral presentation. Southeastern Ecology and Evolution Conference.
- 10) *Anderson, V.R., **M.F. Chislock**, and A.E. Wilson. 2012. *Daphnia* dynamics across a productivity gradient. Poster presentation. Southeastern Ecology and Evolution Conference.
- 11) **Chislock, M.F.**, O. Sarnelle, A.E. Wilson. 2011. Are cyanobacteria-tolerant *Daphnia pulicaria* genotypes functionally redundant? Oral presentation. Ecological Society of America.
- 12) **Chislock, M.F.**, R.B. Kaul, *L.M. Jernigan, O. Sarnelle, and A.E. Wilson. 2011. Is grazer tolerance to toxic cyanobacteria a general phenomenon? Oral presentation. Southeastern Ecology and Evolution Conference.
- 13) **Chislock, M.F.** R.B. Kaul, *L.M. Jernigan, O. Sarnelle, and A.E. Wilson. 2011. Is grazer tolerance to toxic cyanobacteria a general phenomenon? Oral presentation. Auburn University Graduate Scholars Forum.
- 14) **Chislock, M.F.**, R.B. Kaul, *L.M. Jernigan, O. Sarnelle, and A.E. Wilson. 2011. Is grazer tolerance to toxic cyanobacteria a general phenomenon? Oral presentation. American Society of Limnology and Oceanography.
- 15) Wilson, A.E., *P.J. Bradley, *K.E. Peck, and **M.F. Chislock**. 2011. The diazotroph, *Cylindrospermopsis raciborskii* dominates under very low and very high nitrogen-to-phosphorus ratios: implications for its control. Oral presentation. American Society of Limnology and Oceanography.
- 16) Turner, A.M. and **M.F. Chislock**. 2011. Eutrophication and info-disruption: elevated pH impairs perception of predation risk by freshwater snails. Oral presentation. American Society of Limnology and Oceanography.
- 17) Wilson, A.E., **M.F. Chislock**, R.B. Kaul, *K.A. Adamson, and O. Sarnelle. 2010. Ecological control of toxic cyanobacterial blooms. Oral presentation. University of North Carolina at Chapel Hill Institute for the Environment Water and Health Symposium.
- 18) Wilson, A.E., R.B. Kaul, **M.F. Chislock**, *K.M. Adamson, and G.M. Curvin. 2010. Forecasting toxic cyanobacterial blooms throughout Alabama. Oral presentation. Alabama Water Resources Conference.
- 19) Kaul, R.B., **M.F. Chislock**, *K.A. Adamson, G.M. Curvin. 2010. Forecasting cyanobacterial abundance throughout the southeastern U.S. Poster presentation. University of North Carolina at Chapel Hill Institute for the Environment Water and Health Symposium.
- 20) **Chislock, M.F.**, R.B. Kaul, *K.M. Adamson, and A.E. Wilson. 2010. Subtle effects of *Daphnia* on toxic cyanobacteria under contrasting nitrogen-to-phosphorus ratios: a field experiment. Oral presentation. Ecological Society of America.
- 21) Turner, A.M. and **M.F. Chislock**. 2010. Eutrophication and info-disruption: elevated pH impairs perception of predation risk by freshwater snails. Poster presentation. Ecological Society of America.
- 22) **Chislock, M.F.**, *K.M. Adamson, and A.E. Wilson. 2009. Interactions among variable phosphorus loading, sediment pulses, and herbivorous zooplankton: implications for algal blooms in a reservoir system. Oral presentation. Mid-South Aquatic Plant Management Society Conference.
- 23) Kaul, R.B., **M.F. Chislock**, *K.M. Adamson, G. LoGiudice, and A.E. Wilson. 2009. A limnological survey of Alabama's freshwater systems for cyanobacterial toxins. Poster presentation. Alabama Water Resources Conference.

- 24) Turner, A.M. and **M.F. Chislock**. 2009. Eutrophication and info-disruption: elevated pH impairs perception of predation risk by freshwater snails. Poster presentation. North American Benthological Society Annual Meeting.
- 25) **Chislock, M.F.**, *K.M. Adamson, J.A. Stoeckel, and A.E. Wilson. 2009. Plankton community dynamics near the Saugahatchee Creek embayment. Oral presentation. Tallapoosa Watershed Project Mini-Conference.
- 26) **Chislock, M.F.** and A.M. Turner. 2009. Blinded by the stink: eutrophication impairs the anti-predator responses of freshwater gastropods. Oral presentation. Southeastern Ecology and Evolution Conference.
- 27) Kaul, R.B., **M.F. Chislock**, *K.M. Adamson, G. LoGiudice, and A.E. Wilson. 2009. A limnological survey of Alabama's freshwater systems for cyanobacterial toxins. Oral presentation. Southeastern Ecology and Evolution Conference.
- 28) **Chislock, M.F.** and A.E. Wilson. 2009. Interactions between variable phosphorus pulses and herbivorous zooplankton: implications for control of algal blooms in a reservoir system. Poster presentation. State of Our Watershed Annual Meeting.
- 29) Turner, A.M. and **M.F. Chislock**. 2009. Blinded by the stink: elevated pH impairs the anti-predator responses of freshwater gastropods. Oral presentation. North American Benthological Society Annual Meeting.
- 30) Turner, A.M. and ***M.F. Chislock**. 2008. Blinded by the stink: elevated pH impairs the anti-predator responses of freshwater gastropods. Oral presentation. Ecological Society of America.
- 31) ***Chislock, M.F.** and A.M. Turner. 2008. Blinded by the stink: eutrophication impairs the anti-predator responses of freshwater gastropods. Oral presentation. Midwest Ecology and Evolution Conference.
- 32) Turner, A.M. and ***M.F. Chislock**. 2007. Blinded by the stink: eutrophication impairs the anti-predator responses of freshwater gastropods. Poster presentation. Ecological Society of America.
- 33) ***Chislock, M.F.** and A.M. Turner. 2007. Dragonfly predators influence biomass and density of pond snails. Oral presentation. Annual Meeting of the Pennsylvania Chapter of The Wildlife Society.
- 34) ***Chislock, M.F.** and A.M. Turner. 2007. Dragonfly predators influence biomass and density of pond snails. Oral presentation. Midwest Ecology and Evolution Conference.
- 35) ***Chislock, M.F.** and A.M. Turner. 2006. Odonate predators influence biomass and density of pond snail assemblages. Poster presentation. Joint Conference of the Pennsylvania Chapters of The Wildlife Society and the American Fisheries Society.

INVITED PRESENTATIONS

- 1) **Chislock, M.F.** 2015. Careers in fisheries – advise for undergraduates. Oral presentation. Auburn University.
- 2) **Chislock, M.F.** 2014. Plant defense versus herbivore offense across a productivity gradient. Oral presentation. Columbus State University.
- 3) **Chislock, M.F.** 2013. Bloom-chasing, zoo animal health, and ecological solutions. Oral presentation. Teaching Enhancement Awards Camp, Auburn University.
- 4) Wilson, A.E. and **M.F. Chislock**. 2011. Warm-water aquatic ecology REU at Auburn University. Oral presentation. Alabama State University.

UNDERGRADUATE ADVISEMENT

**NSF RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU) AT AUBURN UNIVERSITY*

¹ Anja Rebelein	University of Erlangen-Nuremburg	Biology major	Summer 2014
*Anthony Scott	Livingstone College	Biology major	Summer 2013
*Leslie Pope	North Georgia College	Biology major	Summer 2013

² *Enrique Doster	Auburn University	Animal Sciences major	Summer 2012
³ *Katie LeMay	Univ of West Alabama	Marine Biology major	Summer 2011
⁴ *Vernon Anderson	Auburn University	Microbiology major	Summer 2011
*Kristin Peck	Smith College	Biology major	Summer 2010

¹DAAD RISE fellowship (German exchange program) to conduct research at Auburn University (AU) - \$5,500.

²AU Undergraduate Research Fellow award (\$6,000) and AU Research Week 3rd place STEM poster.

³Awarded \$400 Sigma Xi Grant-in-Aid of Research (2012) to continue REU research at Auburn University.

⁴AU Undergraduate Research Fellow award (\$6,000).

HIGH SCHOOL STUDENT ADVISEMENT

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

Kayunnush 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

LEADERSHIP ROLES

2013 - present	Search Committee for the Director of the School of Fisheries, Aquaculture, and Aquatic Sciences, Auburn University (Graduate Student Representative)
2013 – 2014	Volunteer Academic Tutor (Chemistry), Auburn University
2008 - present	Graduate Student Mentor, NSF-REU and -RAHSS Program, Auburn University Assist students with experimental design and analysis, limnological sampling, lab-based assays, and large-scale limnocorral experiments during summer.
2007	Student Representative, Pennsylvania Chapter of the American Fisheries Society
2007	Volunteer Academic Tutor (Chemistry, Mathematics), Clarion University

REVIEWING ACTIVITIES

American Naturalist; Ecology; Ecosystems; Harmful Algae; Journal of Natural Resources Education; Lakes & Reservoirs: Research and Management; Limnology and Oceanography; Plos One; Water Research; WH Freeman – textbook review

PROFESSIONAL AFFILIATIONS

Ecological Society of America	member since 2008
American Society of Limnology and Oceanography	member since 2010
American Fisheries Society – Auburn Student Chapter	member since 2008
Sigma Xi	associate member since 2008

PROFESSIONAL REFERENCES

Dr. Alan Wilson – *Masters & Ph.D. advisor*

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Dr. Andrew Turner – *Undergraduate advisor*

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Phone #: 814-393-2237
Fax #: 814-393-2731
Email: aturner@clarion.edu

Dr. Dennis DeVries – *Committee Member*

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