

## Troy M. Farmer

Assistant Professor  
Department of Forestry and  
Environmental Conservation  
Clemson University

Website: <https://www.farmerlabclemsion.com/>

261 Lehotsky Hall  
Clemson, SC 29634  
Office: (864) 656-2932  
email: [tmfarme@clemsion.edu](mailto:tmfarme@clemsion.edu)

---

### EDUCATION

Ph.D. Evolution, Ecology and Organismal Biology. 2013. The Ohio State University, Columbus, OH.

Co-Advisors: Dr. Stuart A. Ludsin and Dr. Elizabeth A. Marschall.

Dissertation Title: Climate change effects on Lake Erie yellow perch reproduction and recruitment.

M.S. Fisheries, Aquaculture and Aquatic Sciences. 2008. Auburn University, Auburn, AL.

Co-Advisors: Dr. Dennis R. DeVries and Dr. Russell A. Wright.

Thesis Title: Using fish otoliths to study mercury bioaccumulation in fish from the Mobile-Tensaw River Delta.

B.S. Fisheries, Aquaculture and Aquatic Sciences. 2004. Auburn University, Auburn, AL.

### PROFESSIONAL EXPERIENCE

Assistant Professor, Clemson University, Department of Forestry and Environmental Conservation (FEC). August 2017 – Present.

Postdoctoral Fellow, Auburn University, School of Fisheries, Aquaculture and Aquatic Science (SFAAS). January 2015 – August 2017.

Postdoctoral Research Associate, The Ohio State University, Department of Evolution, Ecology and Organismal Biology (EEOB). January 2013 – January 2014.

University Presidential Fellow, The Ohio State University, Department of Evolution, Ecology and Organismal Biology (EEOB). January 2013 – December 2013.

Graduate Research & Teaching Assistant, The Ohio State University. Department of Evolution, Ecology and Organismal Biology (EEOB). August 2008 – December 2012.

Graduate Research Assistant, Auburn University, School of Fisheries, Aquaculture and Aquatic Science (SFAAS). January 2006 – August 2008.

Research Assistant II, Auburn University, School of Fisheries, Aquaculture and Aquatic Science (SFAAS). August 2004 – December 2005

Field/Lab Ichthyology Research Assistant, Auburn University, School of Fisheries, Aquaculture and Aquatic Science (SFAAS). May 2004 – August 2004.

## TEACHING EXPERIENCE

Instructor of Record, Dept. of FEC, Clemson, SC

*Regularly Offered Courses*

- WFB 4180/6180, Fisheries Management & Conservation
  - In-person: Every Autumn 2017-present (~ 20 students)
  - Online: Every Summer 2018-present (~12 students)
- WFB 4160/6160, Fisheries Techniques, Odd Springs 2019-present (~ 25 students)
- WFB 8610, Bayesian Inference in Ecology & Natural Resources, Even Autumns (10 students)

*Courses Offered As Needed*

- BIOL 8070, Ecology Reading Group, Autumn 2023 (16 students)
- WFB 8610, Quantitative Techniques in Fisheries Science, Autumn 2018 (6 students)
- WFB 8610, Readings in Fish Ecology and Management (2-3 students)
- FNR 4700-040, Black Bass Reservoir Ecology, 2021-2022 (6 students)
- FNR 4700-025, Estuarine Fish Ecology, 2018-2022 (6 students)
- FNR 4700-024, Climate Change Effects on Carolina Fishes, 2018-2021 (6 students)
- FNR 4700-026, Stream Fish Mercury Dynamics in Managed Forests, 2018-2021 (6 students)
- FNR 4700-052, Behavioral Ecology of Freshwater Fish, Spring 2018 (7 students)
- FNR 4700-011, Fish Habitat Fragmentation and Forestry Operations, Spring 2018 (7 students)

Instructor of Record, Dept. of EEOB, OSU, Columbus, OH

- EEOB 3410, Ecology, Autumn 2014. (~130 students)

Guest Lecturer, SFAAS, AU, Auburn, AL

- FISH 7340, Fish Ecology, Spring 2017.
- FISH 6510, Fisheries Biology and Management, Autumn 2015.

Guest Lecturer, Dept. EEOB, OSU Columbus, OH

- EEOB 5430, Ecology & Biology of Fishes, Spring 2014.
- EEOB 626, Ecology & Biology of Fishes, Spring 2011.

Graduate Teaching Assistant, Dept. EEOB, OSU Columbus, OH

- EEOB 626, Ecology & Biology of Fishes, Spring 2010.

## RESEARCH GRANTS FUNDED

US Dept. of Defense, US Army Corps of Engineers, Wilmington District. Sustainable Rivers Program. Re-evaluation of fish passage at the nature-like rock ramp fishway on the Cape Fear River. PIs **T. Farmer** (CU) and F. Scharf (UNCW). 2023-2025. \$311,575 total (\$107,112 sub-award to CU). (ongoing)

Santee Cooper. Evaluating study designs for diadromous fish monitoring on the Santee River, South Carolina. PI **T. Farmer** (CU). 2023. \$9,380. (ongoing)

US Department of Agriculture. The application of microRNA to impact muscle growth in rainbow trout with climate change implications (Predoctoral Fellowship, Aliute Udoka). PIs S. Duckett (CU) and **T. Farmer** (CU). 2023-2026. \$179,823. (ongoing)

USDA Forest Service. Assessment of an Epizootic Ulcerative syndrome outbreak during forest harvest operations, Santee Experimental Forest, South Carolina. PIs **T. Farmer** (CU), T. Bruce (AU), Z. Noel (AU), C. Trettin (USDA). 2023-2025. \$100,469. (ongoing)

US Fish and Wildlife Service and South Carolina Department of Natural Resources. Edisto River flow effects on summer water temperatures: Are thermal tolerances of SWAP fishes exceeded at low flows? PIs **T. Farmer** (CU) and L. Bower (CU). 2023-2026. \$300,981 (\$159,886 to CU).

## Farmer CV

US Dept. of Defense, US Army Corps of Engineers. Development of eDNA as a Tool to Evaluate Anadromous Fish Passage in Response to Environmental Flows. PIs. **T. Farmer** (CU) and A. Bunch (CU). 2022-2023. \$50,963. (ongoing)

US Dept. of Defense, US Army Corps of Engineers. Induced fish passage at lowhead dams. PIs. **T. Farmer** (CU) and A. Bunch (CU). 2021-2022. \$25,000. (completed)

US Department of Energy. How does mercury methylation respond to intensive forest management and the creation of anoxia in floodplain soils? PIs. M. Tsui (UNCG), C. Trettin (USDA), A. Chow (CU), **T. Farmer** (CU), and B. Gu (ORNL). 2020-2023. \$132,336 total (\$30,000 sub-award to CU). (ongoing)

US Dept. of Defense. US Army Corps of Engineers via Auburn University. Migratory Behavior of Diadromous and Potamodromous Fish at a Rock Arch Rapids Structure in the Cape Fear River, North Carolina. PIs. **T. Farmer** (CU) and B. Peoples (CU). 2020-2023. \$290,330. (ongoing)

US Fish and Wildlife Service and South Carolina Department of Natural Resources. Estimation of abundance for age-1 and adult Atlantic sturgeon in two rivers in the Carolina and Chesapeake Distinct Population Segments. PIs. B. Peoples (CU) and **T. Farmer** (CU). 2019 – 2023. \$946,295 (\$265,969 to CU) (ongoing)

Alabama Department of Conservation and Natural Resources, Marine Resources Division. “Improving southern flounder management in Alabama coastal waters by quantifying habitat specific rates of growth, sex determination, and recruitment to the commercial and recreational fisheries”. PIs **T. Farmer** (CU) and M. Catalano (AU). 2018-2020. \$234,555. (completed)

Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative. “Run Timing Forecast Models for Kuskokwim River Chinook Salmon”. PIs M. Catalano (AU), B. Staton (AU), **T. Farmer** (AU). 2016-2018. \$110,478. (completed)

Ohio Department of Natural Resources-Division of Wildlife, Federal Aid in Sport Fish Restoration Project Funds. “Meteorological effects on Lake Erie yellow perch reproduction and recruitment”. PIs: S. Ludsin, E. Marschall (OSU), K. Dabrowski (OSU), and **T. Farmer** (OSU), 2009-2015, annual awards totaling \$515,969. (completed)

Great Lakes Fishery Commission, Fisheries Research Program. Winter warming effects on yellow perch reproduction and recruitment. PIs: S. Ludsin (OSU), E. Marschall (OSU), K. Dabrowski (OSU), and **T. Farmer** (OSU) 2010-2013, \$112,725. (completed)

Ohio Sea Grant, Ship time award. Winter warming effects on yellow perch reproduction and recruitment. PIs. **T. Farmer** (OSU), S. Ludsin (OSU), and E. Marschall (OSU) 2011. Twenty-four hours of research vessel time on Lake Erie awarded. (completed)

## PROJECT MANAGEMENT

National Science Foundation. Collaborative Proposal: Short-and Long-Term Responses of Watershed-Scale Mercury Cycling to Forest Disturbance. PIs A. Chow (CU), J.C. Melgar (CU), **T. Farmer** (CU). 2019-2024. \$85,246. (T. Farmer became PI when A. Chow left CU for a new position).

## PEER-REVIEWED PUBLICATIONS

† Denotes student advised by **T.M. Farmer**

21. Sackett, D.K., J.K. Chrisp, and **T.M. Farmer**. *In press*. Isotopes and otolith chemistry provide insight into the biogeochemical history of mercury in southern flounder across a salinity gradient. *Environmental Science: Processes & Impacts*.

20. Bruce, T.J., C.C. Trettin, Z.A. Noel, A.T. Chow, K. Warden, C. Roghair, and **T.M. Farmer**. 2023. A case study of epizootic ulcerative syndrome (EUS) caused by *Aphanomyces invadans* in eastern mosquitofish (*Gambusia holbrooki*) from the headwaters of Charleston Harbor, South Carolina. *Journal of Fish Diseases*.
19. †Bunch, A.J., J.P. Henne, D.R. DeVries, R.A. Wright, D.L. Smith, and **T.M. Farmer**. 2023. Evaluation of double acoustic tagging techniques to track American shad *Alosa sapidissima* movements at multiple spatial scales. *Fisheries Research* 261: 106636.
18. Denison, C.D., A. Cottrell, **T.M. Farmer**, D.A. Fox, D.M. Hood, W.C. Post, G. Sorg, E. Waldrop, and B.K. Peoples. 2023. Seasonal migration cues differ for dual spawning Atlantic Sturgeon in the Great Pee Dee River. *Transactions of the American Fisheries Society*.
17. †Chrisp, J.K., T.R. Nelson, D.K. Sackett, and **T.M. Farmer**. 2023. Southern Flounder life history diversity and contributions to fisheries from differing estuarine salinity zones. *Marine and Coastal Fisheries* 15: p.e10243
16. Peoples, B., J. Roberts, and **T.M. Farmer**. 2022. *Applied Fish Ecology*. in S. Midway, C. Hasler, P. Chakrabarty, editor. *Methods for fish biology*, 2nd edition. American Fisheries Society, Bethesda, Maryland.
15. †Bunch, A., H. Hershey, G. Reger, F. Hoogakker, B. Donovan, **T.M. Farmer**. 2022. A Bayesian multistate approach to evaluate movements of an invasive freshwater estuarine-opportunist. *Canadian Journal of Fisheries and Aquatic Sciences* 79:213-222.
14. †Cannaday, J.D. and **T.M. Farmer**. 2022. Assessing the effects of sub-tropical winter thermal conditions on coolwater fish reproduction. *Ecology of Freshwater Fish* 31:300-316.
13. Erickson, K., J. West, M. Dance, **T.M. Farmer**, J. Ballenger, S. Midway. 2021. Changing climate associated with the range-wide decline of an estuarine finfish. *Global Change Biology* 27: 2520-2536.
12. Marcek, B., **T.M. Farmer**, E. Marschall, G. Petris, and S. Ludsins. 2021. Ecosystem change as a driver of fish recruitment dynamics: A case study of two Lake Erie Yellow Perch populations. *Freshwater Biology* 66: 1149-1168.
11. Catalano, M. J., and **T.M. Farmer**. 2018. Weak effects of density on mean length-at-age and condition of Largemouth Bass at large Alabama reservoirs. *North American Journal of Fisheries Management* 38: 281-294.
10. Staton, B. A., M.J. Catalano, **T.M. Farmer**, A. Abebe, & F.S. Dobson. 2017. Development and evaluation of a migration timing forecast model for Kuskokwim River Chinook salmon. *Fisheries Research* 194: 9-21.
9. Hellmann, J.K., I.Y. Ligoeki, C.M. O'Connor, A.R. Reddon, **T.M. Farmer**, S.E. Marsh-Rollo, S. Balshine, and I.M. Hamilton. 2016. The influence of status and the social environment on energy stores in a social fish. *Journal of Fish Biology*. doi:10.1111/jfb.12890.
8. **Farmer, T.M.**, E.A. Marschall, K. Dabrowski and S.A. Ludsins. 2015. Short winters threaten temperate fish populations. *Nature Communications* 6:7724 doi: 10.1038/ncomms8724
7. R. Kraus, C. Knight, **T.M. Farmer**, A.M. Gorman, G. Warren, P. Collingsworth, P. Kocovsky, J. Conroy. 2015. Dynamic hypoxic zones in Lake Erie compress fish habitat, altering vulnerability to fishing gears. *Canadian Journal of Fisheries and Aquatic Sciences* 72: 1-10.
6. Hellmann, J.K., C.M. O'Connor, I.Y. Ligoeki, **T.M. Farmer**, T.J. Arnold, A.R. Reddon, K.A. Garvy, S.E. Marsh-Rollo, S. Balshine and I.M. Hamilton. 2015. Evidence for alternative male morphs in a Tanganyikan cichlid fish. *Journal of Zoology*. DOI: 10.1111/jzo.12222

- 5 \*Scavia, D., J.D. Allan, K.K. Arend, S. Bartell, D. Beletsky, N.S. Bosch, S.B. Brandt, R.D. Briland, I. Daloglu, J.V. DePinto, D.M. Dolan, M.A. Evans, **T.M. Farmer**, D. Goto, H. Han, T.O. Höök, R. Knight, S.A. Ludsin, D. Mason, A.M. Michalak, R.P. Richards, J.J. Roberts, D.K. Rucinski, E. Rutherford, D.J. Schwab, T. Sesterhenn, H. Zhang and Y. Zhou. 2014. Assessing and addressing the re-eutrophication of Lake Erie: central basin hypoxia. *Journal of Great Lakes Research* 40: 226-246.  
\*Winner of the Chandler-Misener Award, presented annually to the “most notable” paper published in the *Journal of Great Lakes Research*.
- 4 DeVries, D.R., R.A. Wright, D.C. Glover, **T.M. Farmer**, M.R. Lowe, A.J. Norris and A.C. Peer. 2014. Largemouth bass in coastal estuaries: A comprehensive study from the Mobile-Tensaw River Delta, Alabama. Southern Division of the American Fisheries Society Symposium, Black Bass Diversity: Multidisciplinary Science for Conservation.
- 3 **Farmer, T.M.**, D.R. DeVries, R.A. Wright and J.E. Gagnon. 2013. Using seasonal variation in otolith microchemical composition to indicate largemouth bass and southern flounder residency patterns across an estuarine salinity gradient. *Transactions of the American Fisheries Society* 142: 1415-1429.
- 2 Lowe, M.L., S.A. Ludsin, B.J. Fryer, R.A. Wright, D.R. DeVries and **T.M. Farmer**. 2012. Response to “Comment on “Otolith Microchemistry Reveal Substantial Use of Freshwater by Southern Flounder in the Northern Gulf of Mexico” by Pedro Morais. *Estuaries and Coasts* 35: 107-110.
- 1 **Farmer, T.M.**, R.A. Wright and D.R. DeVries. 2010. Mercury concentration in two estuarine fish populations across a seasonal salinity gradient. *Transactions of the American Fisheries Society* 139: 1896-1912.

#### TECHNICAL AND NON-PEER REVIEWED PUBLICATIONS

- 6 **T.M. Farmer**, M.A. Angelina, J.K. Chrisp, M.J. Catalano. 2020. Improving Southern Flounder management in Alabama coastal waters by quantifying habitat specific rates of growth, sex determination, and recruitment to the commercial and recreational fisheries. Alabama Department of Conservation and Natural Resources Marine Resources Division Final Report.
- 5 M.J. Catalano, B.A. Staton, **T.M. Farmer**, D.C. Gwinn, S. Fleischman. 2016. Evaluating assessment strategies for Kuskokwim River Chinook salmon. Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative Project Final Product.
- 4 **Farmer, T.M.** 2013. Climate change effects on Lake Erie yellow perch reproduction and recruitment. PhD Dissertation. The Ohio State University, OH.
- 3 **Farmer, T.M.**, K. Dabrowski, E.A. Marschall, and S.A. Ludsin. 2013. Winter warming effects on yellow perch reproduction and recruitment. Great Lakes Fishery Commission Project Completion Report. 56 pp.
- 2 **Farmer, T.M.** 2008. Mercury bioaccumulation patterns in two estuarine sportfish populations. M.S. Thesis. Auburn University, AL.
- 1 **Farmer, T.M.** and Johnston, C.E. 2004. Status of fish species of high conservation concern in the Uchee Creek system (Chattahoochee River Drainage), Alabama. Alabama Dept. of Conservation and Natural Resources Report.

#### PEER REVIEWED PROCEEDINGS AND ABSTRACTS

1. Peijia K, T. Martin, **T.M. Farmer**, C. Huan, A. Devendra, C. Trettin, A. Chow. 2021. Effects of forest management practice (prescribed burning) on mercury transport: a case study in a paired

experimental watershed in lower coastal plain of South Carolina. 21st Biennial Southern Silvicultural Research Conference - Virtual, Mississippi, USA.

### POPULAR ARTICLES

1. Dippold, D.A., G.D. Adams, **T.M. Farmer**, B.A. Staton. Maximize your meeting: A student's guide to American Fisheries Society meetings. 2017. Fisheries.

### ORAL PRESENTATIONS AT SCIENTIFIC MEETINGS

† Denotes student advised by **T.M. Farmer**

78. †Bunch, A.J., J. Matthews, M. Gaither†, D.R. DeVries, R.A. Wright, F.S. Scharf, D.L. Smith, and **T.M. Farmer**. 2023. Fine-scale diadromous fish movement patterns at a large nature-like fishway. Annual Meeting of the American Fisheries Society. Grand Rapids, MI. (**invited presentation**)
77. Peoples, B.K., C. Denison, A. Cottrell, **T.M. Farmer**, D. Fox, D. Hood, B. Post, G. Sorg, and E. Waldrop. 2023. Discharge mediates effects of temperature on Atlantic sturgeon spawning migration in the Great Pee Dee River. Annual Meeting of the American Fisheries Society. Grand Rapids, MI. (**invited presentation**)
76. †Bunch, A.J., T.D. Tuckey, K.T. Bonvechio, R. Maxwell, J. Ballenger, T.C. Pratt, S. Curtis, S. Kinney, and **T.M. Farmer**. 2023. Spatial Variability in Growth, and Prevalence of *Anguillicoloides crassus* in North American Eel Populations. Annual Meeting of the Southern Division American Fisheries Society. Norfolk, VA. (**invited presentation**)
75. †Bunch, A.J., J. DeMeester, D.R. DeVries, R.A. Wright, D.L. Smith, A. Hatchell, F.S. Scharf, and **T.M. Farmer**. 2023. Environmental flow effects on fish passage in a fragmented coastal river: A Bayesian multistate modeling approach. Annual Meeting of the Southern Division American Fisheries Society. Norfolk, VA. (**invited presentation**)
74. **Farmer, T.M.**, †Kerr, D., C. Jachowski, D. Rankin, A. Chastain, W. Wood, and J. Bettinger. 2023. Evaluating movement and habitat selection by Alabama Bass and Largemouth Bass in Lake Hartwell, South Carolina. Annual Meeting of the Southern Division American Fisheries Society. Norfolk, VA. (**invited presentation**)
73. Sliger, R., **T.M. Farmer**, and B.K. Peoples. 2023. Integrating species-specific fish swimming ability into a stream-crossing assessment framework. Annual Meeting of the Southern Division American Fisheries Society. Norfolk, VA. (**invited presentation**)
72. Annis, B., L. Thompson, S. Midway, **T.M. Farmer**, B.K. Peoples. 2023. Assessing patterns of taxonomic homogenization of freshwater fishes across the conterminous United States. Annual Meeting of the Southern Division American Fisheries Society. Norfolk, VA. (**invited presentation**)
71. †Zumwalt, T., **T.M. Farmer**, M. Scott, B.K. Peoples. 2023. Movement of Endemic Bartram's Bass and Invasive Alabama Bass in Eastatoee Creek, South Carolina. Annual Meeting of the Southern Division American Fisheries Society. Norfolk, VA. (**invited presentation**)
70. †Bunch, A.J. and T.M. Farmer. 2022. Fine-Scale Anadromous Non-Salmonid Fish Movement Patterns and Passage at a Large Nature-Like Fishway. Annual Meeting of the American Fisheries Society. Spokane, Washington. (**invited presentation**)
69. †Kerr, D. and T.M. Farmer. 2022. Evaluating Movement Rate and Habitat Use Patterns of Largemouth Bass and Alabama Bass on Lake Hartwell, South Carolina. Annual Meeting of the American Fisheries Society. Spokane, Washington. (**invited presentation**)

68. †Zumwalt, T., T.M. Farmer, M. Scott, B.K. Peoples. 2022. Movement of Endemic Bartram's Bass and Invasive Alabama Bass in Eastatoee Creek, South Carolina. Annual Meeting of the American Fisheries Society. Spokane, Washington. **(invited presentation)**
67. **Farmer T.M.** and M.A. Angelina†. 2022. Winter conditions shape Southern Flounder juvenile recruitment along the northern Gulf of Mexico. Gulf States Marine Fisheries Commission Floundering Around Symposium. Baton Rouge, Louisiana. **(invited presentation)**
66. †Chrisp, J., M. Angelina†, D. Sackett, R. Nelson, and **T.M. Farmer**. 2022. Exploring Southern Flounder Contingent Diversity, Contribution to Fisheries, and Correlations with Growth and Condition using Natural Tracers of Habitat Use. Gulf States Marine Fisheries Commission Floundering Around Symposium. Baton Rouge, Louisiana. **(invited presentation)**
65. Erickson, K.A., J. West, M.A. Dance, T.M. Farmer, J.C. Ballenger, & S.M. Midway. 2022. Changing climate associated with the range-wide decline of an estuarine finfish. Annual Meeting of the Southern Division American Fisheries Society. Charleston, SC. (contributed presentation)
64. Denison, C., B. Post, E. Waldrop, T.M. Farmer, and B.K. Peoples. 2022. Discharge Mediates the Effects of Temperature on Atlantic Sturgeon Spawning Migrations in the Great Pee Dee River. Annual Meeting of the Southern Division American Fisheries Society. Charleston, SC. (contributed presentation)
63. †Kerr, D., D. Rankin, A. Chastain, W. Wood, and **T.M. Farmer**. 2022. Evaluating Largemouth Bass and Alabama Bass movement rates and habitat use in Lake Hartwell, SC. Annual Meeting of the Southern Division of the American Fisheries Society. Charleston, South Carolina. (contributed presentation)
62. †Bunch A.J., B. Post, C. Holbrook, E. Waldrop, G. Sorg, H. Hershey, and **T.M. Farmer**. 2022. Movements of an anadromous alosine in a complex river-reservoir system. Annual Meeting of the Southern Division of the American Fisheries Society. Charleston, South Carolina. (contributed presentation)
61. Erickson, K.A., J. West, M.A. Dance, T.M. Farmer, J.C. Ballenger, & S.M. Midway. 2021. Changing climate associated with the range-wide decline of an estuarine finfish. Annual Meeting of the American Fisheries Society. Baltimore, MD. (contributed presentation)
60. **Farmer T.M.**, M.A. Angelina†, and J.C. Chrisp†. 2021. Southern Flounder growth and recruitment in Alabama coastal waters. Annual Meeting of the South Carolina Chapter of the American Fisheries Society. Virtual Meeting. (contributed presentation)
59. †Bunch, A.J. and **T.M. Farmer**. Design and testing of an HR2 acoustic array for assessing fine-scale fish movement. 2020. Annual Meeting of the American Fisheries Society. Virtual Meeting. (contributed presentation).
58. †Cannaday, J.C. and **T.M. Farmer**. 2020. Do warmer winters threaten southern populations of Yellow Perch? Annual Meeting of the American Fisheries Society. Virtual Meeting. (contributed presentation)
57. Marcek, B., **T.M. Farmer**, E. Marschall, G. Petris, S. Ludsin. 2020. Drivers of fish recruitment in a large, freshwater ecosystem are temporally dynamic. Annual Meeting of the American Fisheries Society. Virtual Meeting. (contributed presentation)
56. †Cannaday, J.C., and **T.M. Farmer**. 2020. Winter temperature effects on yellow perch reproduction at the southern edge of the species range. Annual Meeting of the South Carolina Chapter of the American Fisheries Society. Santee, SC. (contributed presentation)

55. †Angelina, M.A. and **T.M. Farmer**. 2020. Habitat-specific effects on Southern Flounder (*Paralichthys lethostigma*) growth rates in Mobile Bay, Alabama. Annual Meeting of the South Carolina Chapter of the American Fisheries Society. Santee, SC. (contributed presentation)
54. †Chrisp, J.C., T.R. Nelson, M.C. Catalano, D.R. DeVries, R.A. Wright, **T.M. Farmer**. 2020. Age-specific residency patterns of Southern Flounder (*Paralichthys lethostigma*) over 15 years in Mobile Bay, Alabama. Annual Meeting of the South Carolina Chapter of the American Fisheries Society. Santee, SC. (contributed presentation)
53. †Cannaday, J.C., and **T.M. Farmer**. 2020. Winter temperature effects on yellow perch reproduction at the southern edge of the species range. Midwest Fish and Wildlife Conference. Springfield, Illinois. (**invited presentation**)
52. **Farmer, T.M.**, J. Bulak, Y. Kanno, and M. Catalano. 2020. New tools for assessing responses of reservoir fish populations to management actions. 2020. Annual Meeting of the South Carolina Chapter of the American Fisheries Society. Santee, SC. (contributed presentation)
51. †Angelina, M.A. and **T.M. Farmer**. 2020. Habitat-specific effects on Southern Flounder (*Paralichthys lethostigma*) growth rates in Mobile Bay, Alabama. Annual Meeting of the Southern Division of the American Fisheries Society. Little Rock, AR. (contributed presentation)
50. †Chrisp, J.C., T.R. Nelson, M.C. Catalano, D.R. DeVries, R.A. Wright, **T.M. Farmer**. 2020. Age-specific residency patterns of Southern Flounder (*Paralichthys lethostigma*) over 15 years in Mobile Bay, Alabama. Annual Meeting of the Southern Division of the American Fisheries Society. Little Rock, AR. (contributed presentation)
49. **Farmer, T.M.**, J. Bulak, and Y. Kanno. 2020. Joint analysis of mark-recapture and telemetry data for abundance estimation of largemouth bass in lake shoreline habitats. Annual Meeting of the Southern Division of the American Fisheries Society. Little Rock, AR. (contributed presentation)
48. †Angelina, M.A., M.J. Catalano, **T.M. Farmer**. 2019. Environmental drivers of southern flounder juvenile recruitment in Alabama coastal waters. Annual Meeting of the American Fisheries Society. Reno, Nevada. (contributed presentation)
47. †Chrisp, J.C., T.R. Nelson, M.C. Catalano, D.R. DeVries, R.A. Wright, T. M. Farmer. 2019. **Farmer**. Habitat-specific recruitment of Southern Flounder to Alabama's fisheries. Annual Meeting of the American Fisheries Society. Reno, Nevada. (contributed presentation)
46. **Farmer, T.M.**, Y. Kanno, and J. Bulak. 2019. Joint analysis of mark-recapture and telemetry data for abundance estimation of largemouth bass in lake shoreline habitats. Annual Meeting of the American Fisheries Society. Reno, Nevada. (**invited presentation**)
45. †Cannaday, J.D., and **T.M. Farmer**. 2019. Winter temperature effects on yellow perch reproduction at the southern edge of the species range. Annual Meeting of the American Fisheries Society. Reno, Nevada. (contributed presentation)
44. **Farmer, T.M.**, Y. Kanno, and J. Bulak. 2019. Joint analysis of mark-recapture and telemetry data for abundance estimation of largemouth bass in lake shoreline habitats. Annual Meeting of the South Carolina Chapter American Fisheries Society. Clemson, South Carolina. (contributed presentation)
43. †Angelina, M.A., M.J. Catalano, **T.M. Farmer**. 2019. Environmental Factors Affecting Southern Flounder Juvenile Recruitment along the Northeastern Gulf of Mexico. Benthic Ecology Meeting. St. Johns, Newfoundland, Canada. (contributed presentation)
42. †Angelina, M.A., L.G. Campbell, M.J. Catalano, E. Peatman, **T.M. Farmer**. 2018. Clemson Biological Sciences Annual Student Symposium (CBASS). Clemson, South Carolina.  
**\*\*3<sup>rd</sup> Place - Oral Presentation Category\*\***

41. **Farmer, T.M.** 2018. Introduction and Research Program Overview. South Carolina Department of Natural Resources Freshwater Fishery Biologist Meeting. Hampton, South Carolina. **(invited presentation)**
40. **Farmer, T.M.**, M.J. Catalano, N.G. Feltz. 2017. Performance of a statistical catch-at-age analysis for inconsistent electrofishing samples from inland fisheries. 147th Annual Meeting of the American Fisheries Society. Tampa, Florida. (contributed presentation)
39. Catalano, M.J., N.G. Feltz, and **T.M. Farmer**. 2017. Within-population associations between growth and natural mortality in two Alabama reservoir largemouth bass stocks. 147th Annual Meeting of the American Fisheries Society. Tampa, Florida. (contributed presentation)
38. **Farmer, T.M.** 2017. Climate change effects on temperate fish populations during a warmer 21st century. Louisiana State University, College of the Coast and Environment Spring Seminar Series. **(invited presentation)**
37. **Farmer, T.M.**, M.J. Catalano, N.G. Feltz. 2017. An alternative to catch curves for estimating year class strength and mortality for inland recreational fisheries. Joint Annual Meeting of the Mississippi and Alabama Chapters of the American Fisheries Society. Biloxi, Mississippi. (contributed presentation)
36. **Farmer, T.M.**, M.J. Catalano, N.G. Feltz. 2016. Performance of a statistical catch-at-age analysis for inconsistent electrofishing samples from inland fisheries. 70<sup>th</sup> Annual Conference of the Southeastern Association of Fish and Wildlife Agencies. Baton Rouge, Louisiana. (contributed presentation)
35. **Farmer, T.M.**, E.A. Marschall, K. Dabrowski, and S.A. Ludsin. 2015. Short, warm winters negatively affect Lake Erie yellow perch reproduction and recruitment. 2015. 145<sup>th</sup> Annual Meeting of the American Fisheries Society. Portland, Oregon. **(invited presentation)**
34. Kallis, J.L., J.J. Van Tassell, D.C. Glover, **T.M. Farmer**, E.A. Marschall. 2015. How parental characteristics affect spawning phenology and egg quality in Lake Erie walleye. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
33. **Farmer, T.M.**, K. Dabrowski, E.A. Marschall, and S.A. Ludsin. 2014. Short, warm winters negatively affect yellow perch *Perca flavescens* reproduction and recruitment. 144<sup>th</sup> Annual Meeting of the American Fisheries Society. Québec City, QC, Canada. **(invited presentation)**  
**\*\*Best Student Paper Symposium\*\***
32. Kraus R.T., A.M. Gorman, **T.M. Farmer**, C. Knight, G. Warren, P. Collingsworth. 2014. Dynamic Hypoxic Zones in Lake Erie Compress Fish Habitat Altering Vulnerability to Fishing Gears. 144<sup>th</sup> Annual Meeting of the American Fisheries Society. Québec City, QC, Canada. (contributed presentation)
31. **Farmer, T.M.**, K. Dabrowski, E.A. Marschall, and S.A. Ludsin. 2014. Climate warming negatively affects Lake Erie yellow perch reproductive success and recruitment. International Association for Great Lakes Research 57th Annual Conference on Great Lakes Research. Hamilton, ON, Canada. **(invited presentation)**
30. Schmit, C.L. †, **T.M. Farmer**, K. Dabrowski, E.A. Marschall, and S.A. Ludsin. 2014. Climate change effects on Lake Erie yellow perch spawning phenology. International Association for Great Lakes Research 57th Annual Conference on Great Lakes Research. Hamilton, ON, Canada. **(invited presentation)**
29. Briland, R.D., Pfaff, J.M., **T.M. Farmer**, and S.A. Ludsin. 2014. Recruitment of invasive white perch in Lake Erie: the relative roles of climate warming and re-eutrophication. International

- Association for Great Lakes Research 57th Annual Conference on Great Lakes Research. Hamilton, ON, Canada. **(invited presentation)**
28. **Farmer, T.M.**, K. Dabrowski, E.A. Marschall, and S.A. Ludsin. 2014. Climate change effects on Lake Erie yellow perch reproduction and recruitment. 2014. Ohio Chapter of the American Fisheries Society Annual Meeting, Columbus, OH. **(invited presentation)**  
**\*\*Best Student Presentation Award\*\***
  27. Kraus R.T., A.M. Gorman, **T.M. Farmer**, C. Knight, G. Warren, P. Collingsworth. 2014. Highly variable dissolved oxygen in Lake Erie has implications for fish kills and vulnerability of fish to capture. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
  26. **Farmer, T.M.**, K. Dabrowski, E.A. Marschall, and S.A. Ludsin. 2014. Climate change effects on Lake Erie yellow perch reproduction and recruitment. 2014. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
  25. DeVries, D.R., **T.M. Farmer**, D.C. Glover, M.R. Lowe, A.J. Norris, A.C. Peer, and R.A. Wright. 2013. Largemouth bass in coastal estuaries: a comprehensive study from the Mobile-Tensaw River Delta, Alabama. Annual Meeting of the American Fisheries Society, Little Rock, Arkansas. **(invited presentation)**
  24. **Farmer, T.M.**, K. Dabrowski, E.A. Marschall, and S.A. Ludsin. 2013. What does climate change hold for Lake Erie yellow perch? 2013. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
  23. Dabrowski, K., M. Korzeniowska, **T.M. Farmer**, E.A. Marschall, and S.A. Ludsin. 2013. The function of neutral lipids in early life history of yellow perch: Transition from endogenous to exogenous nutrition. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
  22. DeVries, D.R., R.A. Wright, D.C. Glover, **T.M. Farmer**, M.R. Lowe, A.J. Norris, and A.C. Peer. 2013. Largemouth bass in coastal estuaries: A comprehensive study from the Mobile-Tensaw River Delta, Alabama. Southern Division of the American Fisheries Society Spring Meeting. Nashville, TN. **(invited presentation)**
  21. **Farmer, T.M.**, S.A., Ludsin, E.A. Marschall. Meteorological effects on yellow perch recruitment in Lake Erie. 2012. 142<sup>nd</sup> Annual Meeting of the American Fisheries Society. St. Paul, MN. (contributed presentation)
  20. Gorman, A., C. Knight, R. Kraus, **T. Farmer**, L. Zinn, P. Kocovsky, J. Deller. 2012. Fine-scale dynamics of Lake Erie's hypoxic zone and associated fish responses. 142<sup>st</sup> Annual Meeting of the American Fisheries Society. St. Paul, MN. (contributed presentation)
  19. **Farmer, T.M.**, S.A., Ludsin, E.A. Marschall. Meteorological effects on yellow perch recruitment in Lake Erie. 2012. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
  18. **Farmer, T.**, Knight, C., Gorman, A., Ludsin, S.A., and Pangle, K. 2011. Hypoxia's impact on fish distributions and population estimates. 141<sup>st</sup> Annual Meeting of the American Fisheries Society. Seattle, WA. (contributed presentation)
  17. Gorman, A., C. Knight, P. Kocovsky, and **T. Farmer**. 2011. Spawning distributions of Lake Erie yellow perch and potential impacts on year class strength. 141<sup>st</sup> Annual Meeting of the American Fisheries Society. Seattle, WA. (contributed presentation)
  16. **Farmer, T.**, S. Ludsin, E. Marschall, K Dabrowski, and P. Kocovsky. 2011. Yellow perch spawning distributions, egg quality, and fecundity in Lake Erie's western and central basins. Ohio

- Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
15. Vue, S., Knight, C., Gorman, A., and **Farmer, T.** 2011. Yellow perch feeding during the spawning period. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. (contributed presentation)
  14. **Farmer, T.**, E. Marschall, and S. Ludsin. 2010. Energetic costs of climate change: Winter temperature and hypoxia effects on reproduction of an iteroparous, cool-water fish. 95<sup>th</sup> Annual Meeting of the Ecological Society of America. Pittsburgh, PA. (contributed presentation)
  13. Vue, S., Knight, C., Gorman, A., and **Farmer, T.** 2010. Yellow perch feeding during the spawning period. 140<sup>th</sup> Annual Meeting of the American Fisheries Society. Pittsburgh, PA. (contributed presentation)
  12. Knight, C., A. Gorman, **T. Farmer**, K. Pangle, S. Ludsin. 2010. Sampling low dissolved oxygen waters can change population estimates. 140<sup>th</sup> Annual Meeting of the American Fisheries Society. Pittsburgh, PA. (contributed presentation)
  11. **Farmer, T.**, E. Marschall, and S. Ludsin. 2010. Meteorological effects on yellow perch reproduction and recruitment in Lake Erie. Ohio Div. of Wildlife and Ohio State Aquatic Ecology Laboratory Research Review Meeting, Columbus, OH. **(invited presentation)**
  10. **Farmer, T.M.**, D.R. DeVries, R.A. Wright, J.E. Gagnon, and B.J. Fryer. 2008. The dynamics of mercury bioaccumulation in two sportfish populations in the Mobile-Tensaw River Delta, Alabama. Alabama-Mississippi Bays and Bayous Symposium. Biloxi, MS. (contributed presentation)
  9. **Farmer T.M.**, D.R. DeVries, R.A. Wright, J.E. Gagnon, and B.J. Fryer. 2008. Using fish otoliths to explore mercury bioaccumulation patterns in coastal fish populations in the Mobile-Tensaw River Delta, Alabama. 138<sup>th</sup> Annual Meeting of the American Fisheries Society. Ottawa, ON, Canada. (contributed presentation) **\*\*Best Student Paper Symposium\*\***
  8. **Farmer T.M.**, D.R. DeVries, R.A. Wright, J.E. Gagnon, and B.J. Fryer. 2008. Using fish otoliths to explore mercury bioaccumulation patterns in coastal fish populations in the Mobile-Tensaw River Delta, Alabama. Southern Division of the American Fisheries Society Spring Meeting. Wheeling, WV.
  7. **Farmer T.M.**, D.R. DeVries, R.A. Wright, J.E. Gagnon, and B.J. Fryer. 2008. Mercury bioaccumulation patterns in coastal fish populations in the Mobile-Tensaw River Delta. Alabama Fisheries Association 25<sup>th</sup> Annual Meeting. Orange Beach, AL. (contributed presentation)
  6. **Farmer T.M.**, D.R. DeVries, R.A. Wright, J.E. Gagnon, and B.J. Fryer. 2008. Mercury bioaccumulation patterns in coastal fish populations in the Mobile-Tensaw River Delta. Alabama Dept. Conservation and Natural Resources and Auburn University Project Review Meeting, Auburn, AL. **(invited presentation)**
  5. **Farmer T.M.**, D.R. DeVries, R.A. Wright, J.E. Gagnon, and B.J. Fryer. 2007. Spatial patterns of mercury accumulation in fish in the Mobile-Tensaw River Delta, Alabama. 137<sup>th</sup> Annual Meeting of the American Fisheries Society, San Francisco, CA. (contributed presentation)
  4. **Farmer T.M.**, D.R. DeVries, R.A. Wright, B.J. Fryer and J.E. Gagnon. 2007. Using fish otoliths to explore bioaccumulation patterns. Alabama Dept. Conservation and Natural Resources and Auburn University Project Review Meeting, Auburn, AL. **(invited presentation)**

3. **Farmer T.M.**, D.R. DeVries, R.A. Wright. 2006. Mercury in the Mobile-Tensaw River Delta: Using fish otoliths to explore bioaccumulation patterns. Alabama Dept. Conservation and Natural Resources and Auburn University Project Review Meeting, Auburn, AL. **(invited presentation)**
2. **Farmer T.M.** and C.E. Johnston. 2005. Status of fish species of high conservation concern in the Uchee Creek Drainage, (Chattahoochee River Drainage) Alabama. Alabama Fisheries Association 22<sup>nd</sup> Annual Meeting. Auburn, AL. **(invited presentation)**
1. **Farmer T.M.**, D.R. DeVries and R.A. Wright. 2005. Hurricane Ivan and the lower Mobile-Tensaw River Delta. Alabama Dept. Conservation and Natural Resources and Auburn University Project Review Meeting, Auburn, AL. **(invited presentation)**

#### POSTER PRESENTATIONS AT SCIENTIFIC MEETINGS

25. †Tiller, I., †M. Byars, †A. Peel, †B. Darrington, W. Wood, P. Chrisman, D. Kerr, and **T.M. Farmer**. 2023. Do boat electrofishing catch rates of Alabama Bass and Largemouth Bass differ between day and night? Annual Meeting of the Southern Division of the American Fisheries Society. Norfolk, VA.
24. †Monk P., †K. Nicosial, †E. Ronan, B. Post, E. Waldrop, K. Hoffman, and **T.M. Farmer**. 2022. Comparison of otoliths and scales for aging American Shad from a short-lived, semelparous population. Annual Meeting of the Southern Division of the American Fisheries Society. Charleston, South Carolina.
23. †Tiller, I., †M. Byars, †A. Peel, †M. Cribbs, W. Wood, P. Chrisman, †D. Kerr, & **T.M. Farmer**. 2022. Do boat electrofishing catch rates of Alabama Bass and Largemouth Bass differ between day and night? Annual Meeting of the Southern Division of the American Fisheries Society. Charleston, South Carolina.
22. †M. Binker, †E. Davidson, †C. Specht, †A. Thomasson, C. Trettin, A. Chow, T. Bruce, Z. Noel and T.M. Farmer. 2022. Outbreak of an invasive fish pathogen, *Aphanomyces invadans*, in a forested stream in the Santee Experimental Forest, South Carolina. Annual Meeting of the Southern Division of the American Fisheries Society. Charleston, South Carolina.
21. †Balkcum, O., †H. Mulligan, †W. Sims, †J. Cannaday, T.M. Farmer. 2020. How Do Warm Winters Affect Energy Allocation Tradeoffs in Cool-Water Fish? Annual Meeting of the American Fisheries Society. Columbus, Ohio.
20. †Mulligan, H., †F. Slater, †R. Moore, †S. Seeber, †T. Skipper, †W. Simms, †J. Cannaday, T. Farmer. 2020. Latitudinal variation in yellow perch growth across North America. Annual Meeting of the Southern Division of the American Fisheries Society. Little Rock, Arkansas.
19. †Wise, M., †A. Broom, †J. Gordon, P. Ku, M. Tsui, A. Chow, C. Trettin, D. Amatya, T.M. Farmer 2020. Forest management practices affect trophic dynamics in coastal plain streams. Annual Meeting of the Southern Division of the American Fisheries Society. Little Rock, Arkansas.
18. †Mulligan, H., †F. Slater, †R. Moore, †S. Seeber, †T. Skipper, †W. Simms, †J. Cannaday, T. Farmer. 2019. Latitudinal variation in yellow perch growth across North America. Annual Meeting of the American Fisheries Society. Reno, Nevada.
17. †Collins, M., †J. Moreland, †M. Angelina, †J. Cannaday, S. Ludsin, E. Marschall, T. Farmer. 2019. Lake Erie hypoxia reduces yellow perch growth. Annual Meeting of the American Fisheries Society. Reno, Nevada.
16. †Angelina, M., M. Catalano, T. Farmer. 2019. Environmental Factors Affecting Southern Flounder Juvenile Recruitment along the Northeastern Gulf of Mexico. Annual Meeting of the South Carolina Chapter American Fisheries Society. Clemson, South Carolina.

15. †Chrisp, J., R. Nelson, D. DeVries, R. Wright, T. Farmer. 2019. Habitat-Specific Contribution of Southern Flounder to Alabama Fisheries Revealed by Otolith Chemistry. Annual Meeting of the South Carolina Chapter American Fisheries Society. Clemson, South Carolina.
14. †Collins, M., M. Angelina, J. Chrisp, M. Catalano, D. DeVries, R. Wright, T. Farmer. 2019. Spatial, Temporal, and Environmental Correlates of Juvenile Southern Flounder Abundance in Coastal Alabama. Annual Meeting of the South Carolina Chapter American Fisheries Society. Clemson, South Carolina.
13. †Lamb, E., T. Farmer, B. Peoples. 2019 Evaluating Bias in Three-Pass Depletion Backpack Electrofishing. Annual Meeting of the South Carolina Chapter American Fisheries Society. Clemson, South Carolina.
12. †Padgett, A., †A. Rivera, †J. Moreland, P. Ku2, M. Tsui, A. Chow, T. Farmer. 2019. The Effects of Forest Management Practices on Fish Diversity in the Santee Experimental Forest, South Carolina. Annual Meeting of the South Carolina Chapter American Fisheries Society. Clemson, South Carolina.
11. †Angelina, M., M. Catalano, T. Farmer. 2019. Environmental Factors Affecting Southern Flounder Juvenile Recruitment along the Northeastern Gulf of Mexico. Southern Division of the American Fisheries Society. Galveston, TX.
10. †Chrisp, J., R. Nelson, D. DeVries, R. Wright, T. Farmer. 2019. Habitat-Specific Contribution of Southern Flounder to Alabama Fisheries Revealed by Otolith Chemistry. Southern Division of the American Fisheries Society. Galveston, TX.
9. †Collins, M., M. Angelina, J. Chrisp, M. Catalano, D. DeVries, R. Wright, T. Farmer. 2019. Spatial, Temporal, and Environmental Correlates of Juvenile Southern Flounder Abundance in Coastal Alabama. Southern Division of the American Fisheries Society. Galveston, TX.
8. †Lamb, E., T. Farmer, B. Peoples. 2019 Evaluating Bias in Three-Pass Depletion Backpack Electrofishing. Southern Division of the American Fisheries Society. Galveston, TX.
7. †Padgett, A., †A. Rivera, †J. Moreland, P. Ku2, M. Tsui, A. Chow, T. Farmer. 2019. The Effects of Forest Management Practices on Fish Diversity in the Santee Experimental Forest, South Carolina. Southern Division of the American Fisheries Society, Galveston, Texas.
6. †Corbett, J., A. Rivera, S. Kim, K. Pregler, **T. Farmer**, Y. Kanno. 2018. Drought effects on population size, movement, and the potential for density-dependent growth in non-game stream fish in a small Piedmont stream. Poster presentation to the American Fisheries Society. Atlantic City, NJ.
5. †Collins, M., J. Chrisp, M. Angelina, L. Campbell, D. Sackett, M. Catalano, D. DeVries, R. Wright, and **T. Farmer**. 2018. Juvenile Southern Flounder abundance and size-at-age across an estuarine salinity gradient in Mobile Bay, Alabama. Poster presentation to the American Fisheries Society. Atlantic City, NJ.
4. †Coble C., **T. Farmer**, E. Marschall, S. Ludsin, and K. Dabrowski. 2013. Climate change effects on the quantity and quality of eggs and larvae of a coolwater fish. Natural and Mathematical Sciences Undergraduate Research Forum, The Ohio State University, Columbus, OH. (contributed poster)
3. †Coble C., **T. Farmer**, E. Marschall, S. Ludsin, and K. Dabrowski. 2013. Climate change effects on the quantity and quality of eggs and larvae of a coolwater fish. Denman Undergraduate Research Forum, The Ohio State University, Columbus, OH. (contributed poster)
2. †Humbarger, B., **T. Farmer**, C. Schmit, and E. Marschall. 2013. Climate change effects on spawning phenology in a coolwater fish, the yellow perch (*Perca flavescens*). Denman Undergraduate Research Forum, The Ohio State University, Columbus, OH. (contributed poster)

- 1 †Pinkerton, J., **T. Farmer**, J. VanTassell, S. Ludsin, and E. Marschall. 2011. Understanding annual variation in female yellow perch age-at-maturity in Lake Erie. 141<sup>st</sup> Annual Meeting of the American Fisheries Society. Seattle, WA. (contributed poster)

## PROFESSIONAL SERVICE

### Reviewed Articles For:

<i>Aquatic Ecology</i>	<i>Journal of Great Lakes Research</i>
<i>Canadian Journal of Fisheries &amp; Aquatic Sciences</i>	<i>Limnology and Oceanography: Methods</i>
<i>Ecosystems</i>	<i>Marine Ecology Progress Series</i>
<i>Estuaries and Coasts</i>	<i>North American Journal of Fisheries Management</i>
<i>Fisheries Management and Ecology</i>	<i>Science of the Total Environment</i>
<i>Fisheries Research</i>	<i>Transactions of the American Fisheries Society</i>
<i>Global Change Biology</i>	<i>JoVE Journal (Journal of Visualized Experiments)</i>
<i>Hydrobiologia</i>	

### Reviewed proposals for:

Great Lakes Fisheries Trust  
Ohio Sea Grant  
Maryland Sea Grant  
North Carolina Sea Grant

### Reviewed book chapter for:

*Biology and Ecology of Fishes, Third Edition*. James Diana and Tomas Höök

### Professional society memberships:

American Fisheries Society, 2001-present

- Faculty Advisor, Clemson University AFS Student Subunit, 2017-present
- South Carolina Chapter, 2017-present
- Alabama Chapter, 2015-2017
- Ohio Chapter, 2009-2014
- Auburn University Student Subunit, 2001-2008
  - Auburn University Student Subunit: Treasurer 2004-2005

Ecological Society of America, 2009-present

### Professional society service activities

AFS Publications Overview Committee (member 2019-present)  
Best Paper Committee, North American Journal of Fisheries Management (chair 2022-2023, member 2021)  
Organized and Hosted 2019 South Carolina AFS Chapter Annual Meeting, Clemson University  
Workshop and Continuing Education Committee Chair: 2022 Annual Meeting of the Southern Division of the American Fisheries Society, Charleston, South Carolina.  
Co-Instructor Continuing Education Course: Bayesian I: Intro to Bayesian Inference Using Gibbs Sampling (BUGS) for Fish Biologists. 2016. American Fisheries Society Annual Meeting. Kansas City, MO.  
Co-Instructor Continuing Education Course: Bayesian II: Intermediate Bayesian Inference Using Gibbs Sampling (BUGS) for Fish Biologists. 2016. American Fisheries Society Annual Meeting. Kansas City, MO.  
Symposium Co-chair: “Climate, phenology, and life-history traits: extending the match-mismatch hypothesis”. International Associate for Great Lakes Research, Hamilton, ON, Canada. 2014.  
Co-organizer: Southern Division AFS Student Colloquium, Auburn, AL. 2006

## GRADUATE STUDENT MENTORING

### *Committee Chair or Co-chair*

Jacob Daley (PhD, Co-chair with L. Bower), Edisto River flow effects on summertime water temperatures: are thermal tolerances of SWAP fishes exceeded at low flows? (WFB Clemson University), expected graduation date: December 2027.

Jessie Kriner (MS, Chair), Ecological consequences of habitat enhancement in lentic freshwater systems, (WFB, Clemson University), expected graduation date: December 2025.

Maggie Gaither (MS, Chair), Migratory movements and passage success of American Shad in response to environmental flows, (WFB, Clemson University), expected graduation date: December 2024.

Aaron Bunch (PhD, Chair), Movement ecology of diadromous and potamodromous fishes in coastal rivers, (WFB Clemson University), expected graduation date: May 2024.

Deon Kerr (MS, Chair), Diel habitat selection and movement patterns of Largemouth and Alabama Bass in Lake Hartwell, South Carolina (WFB Clemson University), graduation date: December 2022.

John Cannaday (MS, Chair), Climate Change Effects on Coolwater Fishes of the Southeast (WFB, Clemson University), graduation date: December 2020.

Meghan Angelina (MS, Chair), Retrospective Analysis of Southern Flounder Recruitment and Growth Dynamics Along Northern Gulf of Mexico (WFB, Clemson University), graduation date: August 2020.

Jared Chrisp (MS, Chair), Assessing Migratory Patterns and Trophic Dynamics of Southern Flounder Along the Northern Gulf of Mexico (WFB, Clemson University), graduation date: August 2020.

### *Committee Member*

Jacob Hill (MS), Striped Bass migratory cues and habitat selection on the Edisto River, SC (WFB Clemson University), expected graduation date: December 2024.

Henry Hershey (PhD), The effects of dams on fish migration in the Alabama River: laying the groundwork for restoration (Fisheries, Aquaculture, and Aquatic Sciences, Auburn University), December 2023.

Mason Collins (MS), Using a novel satellite tagging approach to estimate spawning locations and post-spawning movements of adult southern flounder (Marine Biology, UNC Wilmington), May 2023.

Tyler Zumwalt (MS), Movement of endemic Bartram's Bass in the Savannah River Basin (WFB Clemson University), May 2023.

Bradley Wilkinson (PhD), Brown Pelican Movement Patterns and Contaminant Risk Exposure in Coastal South Carolina (WFB, Clemson University), December 2021.

Kyle Brumm (MS), Conservation planning for freshwater ecosystems (WFB Clemson University), August 2020

Rochelle Strecker (MS), Reproductive Ecology of Brown Pelicans (*Pelecanus occidentalis carolinensis*) in the Northern Gulf of Mexico (WFB, Clemson University), May 2019.

Emily Judson (MS), Nesting Ecology and Conservation Genetics of Endemic Bartram's Bass in the Savannah River basin, (WFB, Clemson University), May 2018.

Samuel Silknetter (MS), Context Dependency in a Reproductive Mutualism Between Two Stream Fishes, (WFB, Clemson University), May 2018.

## **UNDERGRADUATE STUDENT MENTORING**

### Clemson University Creative Inquiry Students & Farmer Lab Alumni

#### *2021-2023: Black Bass Reservoir Ecology*

- Isabell Tiller (BS WFB) – Current Position: Fisheries Technician SC DNR MRRI. Accepted for spring 2024 into Marine Biology MS program, Texas A&M University Corpus Christi.
- Andrew Peel (BS ENR) – Current Position: Fisheries Technician SC DNR Region I
- Madison Byars (BS WFB) - Current Position: Passarella & Assoc. Environmental & Ecological Consulting
- Brittany Darrington (BS WFB) – Current Position: Fisheries Technician Utah Division of Wildlife Resources

#### *2018-2021: Estuarine Fish Ecology*

- Mason Collins (BS WFB) – MS Marine Biology UNC Wilmington. Current Position: Fish Biologist GA DNR.
- Eli Lamb (BS WFB) – MS Fisheries, Aquaculture, and Aquatic Sciences Auburn University. Current Position: Fish Biologist SC DRN.

#### *2018-2020: Climate Change Effects on Carolina Fishes*

- Rachel Moore (BS WFB) – MS Fisheries, Aquaculture, and Aquatic Sciences Auburn University, 2023. Current Position: Fish Biologist SC DNR.
- Hannah Mulligan (BS WFB) – MS Wildlife and Fisheries, South Dakota State University.
- William Sims (BS WFB)- Current Position: Fisheries Technician GA DNR.
- Taylor Grace Skipper (BS WFB) – University of South Carolina Law School. Current Position: Law Clerk, The National Wild Turkey Federation

#### *2018-2022: Stream Fish Mercury Dynamics in Managed Forests*

- Ashley Padgett (BS WFB) – MS Biology, Tennessee Tech University, USGS Cooperative Fish and Wildlife Research Unit.
- Jacob Moreland (BS WFB) – MS Wildlife, Fisheries, & Aquaculture, Mississippi State University.
- Lexi Thomason (BS ENR) – Current Position: S.C. Adopt-a-Stream Coordinator, SC DHEC
- Margaret Wise (BS WFB) – Current Position: Ecologist, WSP USA Civil Engineering
- Aaron Thompson (BS ENR) – Current Position: Research Technician, Baruch Institute for Coastal Ecology and Forest Science, Clemson University
- Conner Specht (BS FOR) – Current Position: Fisheries Technician II Prince William Sound Aquaculture Corporation

### Ohio State University Undergraduate Honors Theses Advised

- Humbarger, B. 2013. Climate change effects on spawning phenology in a coolwater fish, the yellow perch *Perca flavescens*. Undergraduate Honor's Thesis. The Ohio State University, Columbus, OH.

### Ohio State University Undergraduate Research Grants Funded

- Ohio State University Undergraduate Research Office Summer Fellowship. “Effects of climate change on yellow perch larvae.” PI's. C. Coble (OSU), **T. Farmer** (OSU), and E. Marschall (OSU) 2013. \$3,500 (completed).

Ohio State University Special Projects Advised (or Co-Advised where Indicated)

- Chelsea Coble (OSU), Spring 2013.  
Project title: Climate change effects on yellow perch (*Perca flavescens*) quantity and quality of eggs and larvae.
- Thomas Peterson (OSU), Summer 2012.  
Project title: Investigating the role of winter duration and female condition in determining yellow perch fecundity.
- Luke Birk (OSU), Spring 2012.  
Project title: Assessing the effects of winter duration and female body condition on yellow perch fertilization success.
- Jeramy Pinkerton (OSU). Summer 2011.  
Project title: Understanding annual variation in female yellow perch age-at-maturity in Lake Erie.
- Chris French (OSU), Fall 2010-Spring 2011.  
Project title: Exploring the effect of winter temperature on fish bioenergetics: are current models adequate?
- Devin Crockett, Metro High School (Columbus, OH), Winter 2009.  
(Co-Advised by J. Kallis and **T. Farmer**).  
Project title: Investigating dynamics of spring zooplankton abundance in Ohio reservoirs.

Ohio State University, Aquatic Ecology Laboratory Volunteers Supervised by T. Farmer

- 29 undergraduate and high school students from The Ohio State University (24), John's Hopkins University (1), Wellesley College (1), Columbus Academy High School (1), and Metro High School, Columbus, OH (2)

**STUDENT HONORS AND AWARDS**

- **Clemson University Doctoral Dissertation Completion Grant**, Aaron Bunch (PhD WFB), 2024, \$7,500 stipend
- **CALFS Stackhouse Fellowship Renewal**, Aaron Bunch (PhD WFB), 2023-2024, \$10,000 stipend
- **AFS John E. Skinner Memorial Fund Travel Award**, Aaron Bunch (PhD WFB), 2023 AFS Annual Meeting, Grand Rapids, MI
- **AFS Estuaries Section Travel Award**, Aaron Bunch (PhD WFB), 2023 AFS Annual Meeting, Grand Rapids, MI
- **CALFS Stackhouse Fellowship**, Aaron Bunch (PhD WFB), 2022-2023, \$10,000 stipend
- **AFS Fish Habitat Section Travel Award for Early Career Professionals**, Deon Kerr (MS WFB), 2022 AFS Annual Meeting, Spokane, WA
- **AFS Distinguished Service Award**, Aaron Bunch (PhD WFB), 2022
- **AFS Water Quality Section Best Student Poster Award**, 2020 AFS Annual Meeting, "How Do Warm Winters Affect Energy Allocation Trade-offs in Cool-Water Fish?" Co-authors: Creative Inquiry students Hannah Mulligan, Olivia Balkcum, and William Sims and MS student John Cannaday.
- **Phil and Mary Bradley Graduate Student Award for Mentoring in Creative Inquiry**, Annual university-wide award recognizing the top graduate student mentor in the Clemson University Creative Inquiry Program, John Cannaday (MS WFB), 2020.

**HONORS AND AWARDS**

- **Best Student Presentation Award**, Ohio Chapter of the American Fisheries Society, 2014 Annual Meeting, Columbus, OH
- **Best Student Paper Symposium**, American Fisheries Society, 144<sup>th</sup> Annual Meeting, Québec City, Québec, Canada, 2014

- **Presidential Fellowship**, The Ohio State University, 2013
  - Most prestigious award given by OSU Graduate School to recognize outstanding scholarly and research accomplishments of final year Ph.D. candidates
- **Norman S. Baldwin Fisheries Science Scholarship**, International Association of Great Lakes Research (IAGLR), 2012.
- **The Honor Society of Phi Kappa Phi**, The Ohio State University, 2012
- **John E. Skinner Memorial Travel Award**, American Fisheries Society, 2008
- **Best Student Paper Symposium**, American Fisheries Society, 138<sup>th</sup> Annual Meeting, Ottawa, Ontario, Canada, 2008
- **Presidential Fellowship**, Auburn University, 2006-2008
- **Environmental Education Scholarship**, Legacy Inc., 2007
- **Gamma Sigma Delta**, The Honor Society of Agriculture, Auburn University, 2007

## OUTREACH ACTIVITIES

- Organized and conducted a 3-day outreach event at the Bassmaster Classic Expo in Greenville, SC, March 16-18, 2018, highlighting the Clemson Fisheries Program and the Fisheries and Aquatic Center for Excellence at Clemson University.
- Authored invited guest blog on [thefisheriesblog.com](http://thefisheriesblog.com) written for a general audience. “Hurricane effects on fish...Revisited.” September 11, 2017.  
<https://thefisheriesblog.com/2017/09/11/hurricane-effects-on-fish-revisited/>
- Judged graduate student scientific presentations at joint meeting of Alabama-Mississippi American Fisheries Society Meeting. February, 2017.
- Authored invited guest blog on [thefisheriesblog.com](http://thefisheriesblog.com) written for a general audience. “Some Unexpected Consequences of Climate Change.” November 1, 2015.  
<http://thefisheriesblog.com/2015/11/01/some-unexpected-consequences-of-climate-change/>
- Participated in annual Aquatic Ecology Lab Outreach Days, presenting ecological research to 6<sup>th</sup> grade students from Indianola K-8 Informal School (Columbus, OH). Annually from 2009-2012 (2 days per year).
- Visited Indianola K-8 Informal School to give presentation on ecological research and the scientific process to two sixth grade classes, fall 2012.
- Participated in annual OSU Women in Science Day, 2009.
- Coordinated and led visit of the OSU American Society of Animal Laboratory Practitioners (Veterinary school students) to the OSU Aquatic Ecology Laboratory, fall 2009.
- Presented research results at annual city-wide meetings of Mobile, Alabama Bass Angler Clubs in 2006, 2007, and 2008.
- Judged student posters at 4-H Regional Competitive Events Day, Opelika, AL, 2006.
- Volunteered to help with fishing games and taught casting techniques to children at the annual *Ag Roundup and Taste of Alabama Agriculture* event, November of each year, Auburn, AL, 2004-2008.

## MEDIA ATTENTION FOR RESEARCH

- BassMaster Magazine. “Hartwell's habitat enhancement.” January 15, 2022. Features MS Student Deon Kerr: <https://www.bassmaster.com/news/hartwells-habitat-enhancement>
- AFS Student & Early Career Professionals Subsection of the Education Section of the American Fisheries Society. “Aaron and Deon host the Fisheries Diversity and Inclusion Podcast.” August 31, 2020. <https://students.fisheries.org/2020/08/aaron-and-deon-host-the-fisheries-diversity-and-inclusion-podcast/>

- Clemson News. “Graduate researcher receives 2020 Phil and Mary Bradley Graduate Student Award for Mentoring in Creative Inquiry.” May 27, 2020. <https://news.clemson.edu/graduate-researcher-receives-2020-phil-and-mary-bradley-graduate-student-award-for-mentoring-in-creative-inquiry/>
- Clemson News. “Clemson fisheries students help international conference go virtual during pandemic.” May 8, 2020. <https://news.clemson.edu/clemson-fisheries-students-help-international-conference-go-virtual-during-pandemic/>
- South Carolina Radio Network. “Clemson establishes Fisheries and Aquatics Center for Excellence.” May 22, 2018. <https://www.southcarolinaradionetwork.com/2018/05/22/clemson-establishes-fisheries-and-aquatics-center-for-excellence/>
- The Union Times. “FACE to help sustain natural resources.” May 21, 2018. <https://www.uniondailytimes.com/features/lifestyle/16262/face-to-help-sustain-natural-resources>
- Great Lakes Echo. “Climate change threatens perch, other warm-water fish.” September 30, 2015. <http://greatlakesecho.org/2015/09/30/climate-change-threatens-perch-other-warm-water-fish/>
- The Windsor Star. “Like yellow perch? Hope for cold winters, study suggests.” August 7, 2015. <http://blogs.windsorstar.com/news/like-yellow-perch-hope-for-cold-winters-study-suggests>
- CBC News. “Climate change could make it hard for yellow perch to breed.” August 4, 2015. <http://www.cbc.ca/news/canada/windsor/climate-change-could-make-it-hard-for-yellow-perch-to-breed-1.3178898>
- The Speaker. “Sea change based on evidence: warmer waters may mean LESS fish due to unexpected factors.” July 23, 2015. <http://thespeaker.co/science/sea-change-based-on-evidence-warmer-waters-may-mean-less-fish-due-to-unexpected-factors/>
- Fishsens Magazine. “Shorter, warmer winters bad for Lake Erie’s yellow perch.” July 21, 2015. <http://magazine.fishsens.com/shorter-warmer-winters-bad-for-lake-eries-yellow-perch.htm>
- Sandusky Register. “Climate change may be driving down yellow perch numbers.” July 17, 2015. <http://www.sanduskyregister.com/news/environment/9112766>
- Cleveland Plain Dealer. “Climate change a threat to Lake Erie yellow perch, says OSU researcher Stu Ludsin”. July 17, 2015. [http://www.cleveland.com/outdoors/index.ssf/2015/07/researcher\\_says\\_climate\\_change.html](http://www.cleveland.com/outdoors/index.ssf/2015/07/researcher_says_climate_change.html)
- ClimateWire. “Climate change threatens fish critical to Lake Erie economy – study.” July 16, 2015. <http://www.eenews.net/climatewire/2015/07/16/stories/1060021901>
- Associated Press. “Lake Erie yellow perch suffer from climate change.” July 15, 2015. <http://wivb.com/2015/07/15/lake-erie-yellow-perch-suffer-from-climate-change/>
- EurekaAlert. “Climate change threatens one of Lake Erie’s most popular fish.” July 15, 2015. [http://www.eurekaalert.org/pub\\_releases/2015-07/osu-cct071315.php](http://www.eurekaalert.org/pub_releases/2015-07/osu-cct071315.php)
- NOAA Climate.gov. “Climate and the Ultimate Pan-Fried Fish.” January 28, 2014. <http://www.climate.gov/news-features/climate-and/climate-ultimate-pan-fried-fish>
- Port Clinton News Herald. “Scientist: Changing climate could hurt fish.” August 22, 2013. <http://www.portclintonnews herald.com/article/20130821/NEWS01/308210030/Scientists-Changing-climate-could-hurt-fish>
- Twinline. “Fishing for Change.” Winter-Spring 2013. Vol. 35 / No. 1.

[http://ohioseagrant.osu.edu/\\_documents/twineline/v35i1.pdf](http://ohioseagrant.osu.edu/_documents/twineline/v35i1.pdf)

- Cleveland Plain Dealer. “Changing Lake Erie, invasive white perch threaten popular yellow perch in Western Lake Erie”. March 29, 2013.  
[http://www.cleveland.com/outdoors/index.ssf/2013/03/changing\\_lake\\_erie\\_invasive\\_wh.html](http://www.cleveland.com/outdoors/index.ssf/2013/03/changing_lake_erie_invasive_wh.html)
- Ohio Outdoor News. “Winter affects fish in different ways”. March 2012.  
[http://www.outdoornews.com/March-2012/Winter-affects-fish-in-different-ways/.](http://www.outdoornews.com/March-2012/Winter-affects-fish-in-different-ways/)
- Bass Blaster. “Science: Save a bass, eat a flounder”. February 2011.  
<http://bassblaster.bassgold.com/science-save-bass-eat-flounder>