

Caleb A. Aldridge

BIOLOGIST / COORDINATOR | U.S. Fish and Wildlife Service

Personal

📍 1209 7th St. N. | Columbus, MS 39701

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☎️ 662-292-1707

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Work

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🌐 [Lower MS River FWC](#)

Education

PH.D. FOREST RESOURCES

Dec. 2022

Mississippi State University, Starkville, MS

Department of Wildlife, Fisheries and Aquaculture

Dissertation title: *Towards Structured Planning and Learning at the State Fisheries Agency Scale*

Dissertation director: Michael E. Colvin (mcolvin@usgs.gov; 573-875-5399)

M.S. BIOLOGICAL SCIENCES

May 2017

University of Mississippi, Oxford, MS

Department of Biology

Thesis title: *The Effect of Road Crossings on Stream-associated Salamanders within Holly Springs National Forest*

Thesis director: Stephen T. Threlkeld (Emeritus; stt@olemiss.edu)

B.S. BIOLOGY

Aug. 2012

University of North Alabama, Florence, AL

Biology Department

Concentration: General Biology

Adviser: Glenn A. Marvin (gamarvin@una.edu; 256-765-4348)

Employment

BIOLOGIST / COORDINATOR (GS-0401-12-02)

Jul. 2022–Present

U.S. Fish and Wildlife Service, Tupelo, MS

40 hr / wk | [REDACTED]

Lower Mississippi River Fish and Wildlife Conservation Office

Supervisor: Angeline J. Rodgers (angeline_rodgers@fws.gov; 601-618-6034)

- Entrusted with leading invasive carp management, monitoring, and research efforts, impacting 9 States within the Lower Mississippi River and Arkansas–Red–White Rivers sub-basins. Coordinates interagency partnerships and strategic decision-making by facilitating open, honest deliberation of project proposals and developing decision support tools. Continuously enhances administrative and decision-making processes, and manages substantial budgets, allocating annual funds (up to \$4.1M) effectively across partnerships.
- Assigned to a national invasive carp management team that coordinates activities across 20 States and 5 Federal agencies. Drives significant organizational change, contributing to improved invasive carp control and prevention through simulation and optimization routines using population management models. Provides analytical budget support to distribute up to \$19.6M.

Last updated: 21 February 2024 | [G](#) [R](#) [ID](#) [C](#) [T](#) | Kindly send questions, feedback, or type errors to caleb.a.aldridge@gmail.com or caleb_aldridge@fws.gov.

- Delegated scientific and technical lead responsibility for the LMRFWCO, aligning with DOI Departmental Manual, Part 305, Chapter 3, *Integrity of Scientific and Scholarly Activities* and appointed as lead or co-facilitator of decision analyses.
 - Facilitates structured decision making and planning processes to ensure: the problem or opportunity is properly framed; objectives are specific, measurable, and time-bound; innovative actions (or strategies) are considered as potential solutions; predictive effects of actions are linked to objectives; trade-offs among actions, as related to objectives, are properly evaluated; and uncertainties, risk, and linked decisions are formally considered in the analysis.
 - Analyzes decision models formed during structured decision making and planning processes using: simple multi-attribute rating techniques; linear programming and constrained optimization; portfolio, allocation, and prioritization analyses; decision trees, influence diagrams, and Bayesian decision networks; sensitivity and value of information analyses; Markov decision processes using exact and approximate methods; and single-loop and double-loop learning procedures of adaptive management.
 - Develops decision-relevant proposals and grant applications for ecological assessment, management evaluation, and mechanistic understanding of species ecology and evolution; designs studies and analyses, spanning observational to experimental, to test biological hypotheses and compare model performance; participates in field sampling and data collection; conducts advanced mathematical analyses to compare hypotheses and estimate decision-relevant metrics; disseminates results through technical reports, scholarly articles, digital tools and platforms, and presentations at meetings; and organizes meetings and symposia and provides scientific and technical review for internal and external outlets.
- Charged with conserving and restoring native species and their habitats, primarily in aquatic systems.
 - Applies fisheries, wildlife, and habitat management techniques; provides ecological insight and experience to assist with conservation planning and implementation; and lends scientific capacity and technological tools to partners for the benefit of native species, including threatened and endangered species.
 - Provides leadership and project management, as appropriate, to conservation efforts and choreographs project-relevant deliverables such as memorandums of understanding, grants and interagency agreements, analytical tools and packages, and static or dynamic reports.
 - Assists leadership with strategic and operational planning and develops transparent and repeatable administrative and organizational processes.
- Trained and experienced in government vehicle operation, including vessels, and maintains or assists with budgetary and administrative tasks including financial statements, equipment inventories (Custodial Property Officer), personnel planning, and safety and training standards.
- Mentors or advises interns and colleagues at the local, regional, and national scales.

BIOLOGIST / COORDINATOR (GS-0401-11-01)

Jul. 2021–Jul. 2022

U.S. Fish and Wildlife Service, Tupelo, MS

40 hr / wk | [REDACTED]

Lower Mississippi River Fish and Wildlife Conservation Office

Supervisor: Angeline J. Rodgers (angeline_rodgers@fws.gov; 601-618-6034)

- Delegated responsibility with leading invasive carp management, monitoring, and research efforts across 9 States within the Lower Mississippi River and Arkansas–Red–White Rivers sub-basins. Coordinated interagency partnerships and facilitated project selection consensus discussions. Managed large budgets and allocated annual funds (up to \$2.3M) effectively across partnerships.
- Assigned to a national invasive carp management team that coordinated activities across 20 States and 5 Federal agencies, providing budget support for distribution of up to \$14M.
- Led scientific and technical efforts of the LMRFWCO, ensuring alignment with Department of the Interior Departmental Manual Part 305 Chapter 3, *Integrity of Scientific and Scholarly Activities*. Efforts

included modeling, hypothesis testing, decision analysis, proposal and manuscript review, and dissemination of findings through manuscripts and presentations.

- Provided project management and administration and mentored or advised interns and colleagues at the local, regional, and national scales.

GRADUATE RESEARCH ASSISTANT (PH.D.)

Mississippi State University, Starkville, MS

Department of Wildlife, Fisheries and Aquaculture

Mississippi Cooperative Fish and Wildlife Research Unit

Supervisors: Michael E. Colvin (mcolvin@usgs.gov; 573-875-5399) and Leandro E. (Steve) Miranda (lem10@msstate.edu; smiranda@usgs.gov; 662-325-3217)

Feb. 2018–Jul. 2021

20+ hr / wk | ██████████

- Assigned with analyzing goals US State inland fisheries bureaus', evaluating the benefits and challenges of standardized fisheries sampling and analysis system, and developing a prototype computer application to streamline fisheries management plans, integrating long-term monitoring with into an adaptive management framework. Described 9 strategic goal themes among 31 State agencies, synthesized from primary and secondary literature, and classified States into distinct groups based on representitiveness of goals themes in strategic plans. Discovered that the number and diversity of goal themes of contemporary inland fisheries are more complex when compared to studies from 45+ years ago.
- Entrusted to review of State fisheries agency standardized monitoring program. Utilized agency personnel interviews and survey responses to evaluate benefits and challenges adopting of standardized data management and analysis procedures and software. Characterized monitoring program growth (e.g., amount of data and number of locations) and assessed reliability of samples collected. Provided guidance on program implementation and standardizing data management and analysis systems, and discussed implementing automated reporting and learning (i.e., adaptive management) systems to compliment monitoring programs.
- Tasked with developing a conceptual framework for modeling decisions and leveraging monitoring data and institutional knowledge to continuously learn, improving inland fisheries management. Developed a template for writing SMART objectives – Specific, Measurbale, Achievable, Relevant, and Time-bound – to increase efficiency and effectiveness when articulating management objectives. Expanded modules within State fisheries agency computer application to include a password protected online database, trends dashboard of fisheries metrics, and planning tools (e.g., sample size estimators, electronic and field data sheet download, and plan development). Created procedures for incorporating formal learning within a monitoring program using Bayesian updating, and utilized decision-analytic approcahes and information-theoretic metrics to evaluate the value of information gained. Gained insights into balancing passive and actived adaptive management schemes to maximize the value of information gained from monitoring.
- Led or supported scientific and scholarly investigations including investigations on fish habitat, invasive species, and improved sampling techniques. Typical tasks included: literature review, study design, data collection, management, and analysis, construction of figures and tables, drafting of reports, and dissemination of findings in written and oral formats. Additionally, developed computer applications to display information and streamline complex data analyses.
- Additional experiences included: mentoring or advising students regarding research, professional development, and academic success; preparation and submission of Institutional Animal Care and Use Committee (IACUC) protocols; preparation and submission of State scientific collecting permits; and Institutional Review Board (IRB) protocol development and submission.

ADJUNCT BIOLOGY INSTRUCTOR

Northwest Mississippi Community College, Senatobia, MS

eLearning and Natural Sciences Departments

Aug. 2018–May 2020

4+ hr / wk | ██████████

Supervisor: Angel Nickens (anickens@northwestms.edu; 662-562-3381)

- Developed and administered online biology lessons and assignments.
- Evaluated student performance on assignments and exams.
- Determined final grades for an average of 40 students per semester.

RESEARCH ASSOCIATE

Mississippi State University, Starkville, MS
Department of Wildlife, Fisheries and Aquaculture
Research and Education to Advance Conservation and Habitats (REACH)
Supervisor: Beth H. Baker (beth.baker@msstate.edu; 662-325-7491)

Jun. 2016–Feb. 2018
40 hr / wk | ██████████

- Entrusted with day to day project management of field experiments and observational studies.
 - Planned water and soil sampling schedules and design in coordination with farmers and MS Department of Environmental Quality, Surface Water Division across 12 sites.
 - Collected stream and runoff surface water using peristaltic samplers, sheet flow tanks, and grab sampling methods on 3 different projects.
 - Used or supervised flow injection analysis to estimate water sample nutrient concentrations for 5 different projects.
 - Used or supervised filtration and spectral analysis to estimate sediment, turbidity, and chlorophyll concentrations on 3 different projects.
 - Used standard statistical analysis to test hypothesis related to water quality and management practices.
- Prepared studies for investigation and manuscripts for reporting and publication.
 - Conducted literature reviews and identified gaps or problems in current knowledge.
 - Prepared experimental and sampling design to address scientific questions.
 - Authored or co-authored journal articles and reports.
 - Prepared tables, figures, and maps for manuscripts using various computer applications.

GRADUATE TEACHING ASSISTANT (M.S.)

University of Mississippi, Oxford, MS
Department of Biology

Aug. 2014–May 2016
20+ hr / wk | ██████████

Supervisors: Stephen T. Threlkeld (Emeritus; stt@olemiss.edu) and Denis C. Goulet (dgoulet@olemiss.edu; 662-915-7213)

- Delivered lectures and labs for introductory biology and ecology courses.
- Investigated (natural experiment) the effect of road-crossings on stream-associated salamander counts and richness, which included study design, sampling (nocturnal encounter and habitat surveys), data analysis, and reporting of results.
- Additional experiences included: mentoring or advising students regarding research, professional development, and academic success; preparation and submission of IACUC protocols; and preparation and submission of State and Federal (U.S. Forest Service) scientific collecting permits.

FIELD TECHNICIAN

Alabama A&M University, Huntsville, AL
Department of Biological and Environmental Sciences
Supervisor: Dawn Lemke (dawn.lemke@aamu.edu; 256-372-4562)

Jan. 2014–May. 2014
15+ hr / wk | ██████████

- Sampled surface water of streams across a gradient of prescribed fire application within watersheds.
- Conducted field and laboratory analysis of surface water.
- Managed data and conducted summary analyses on water and habitat data.

BIOLOGIST'S AIDE (INTERN)

Alabama Department of Conservation and Natural Resources, Cherokee, AL

Feb. 2013–Aug. 2013
40+ hr / wk | ██████████

Freedom Hills Wildlife Management Area

Supervisor: Mitchell Marks (Retired; Current: Marks' Wildlife & Habitat Management, LLC; drthorn22@gmail.com; 256-577-4900)

- Conducted surveys of various wildlife populations including white-tailed deer, eastern turkey, mourning dove, bobwhite quail, and migratory songbirds.
- Established and maintained wildlife habitat through supplemental plantings, mechanical vegetation management, and prescribed burns.

Research Interests

- **Measuring System States:** Optimization of sampling protocols to improve effectiveness and efficiency of measuring system status and improving hypothesis-driven field studies.
- **Relating Human Values and System States:** Incorporation of social science and human dimensions into natural resource decision-making, including development and evaluation of novel valuation techniques and organizational studies to improve organizational decision quality.
- **Finding Optimal Solutions and Decision Support:** Development of decision and planning support frameworks and tools for natural resource management and species conservation in order to evaluate tradeoffs among alternative actions, prioritize research activities, and incorporate formal learning into monitoring programs.
- **Hypothesis Testing and Adaptive Management:** Ecology and conservation science of aquatic ecosystems focusing on population status and dynamics and assemblage responses to perturbations (e.g., invasive species and changes in precipitation patterns or fire regimes) and management (e.g., flood control, habitat enhancement, and harvest controls).

Current Projects and Collaborations

†Denotes lead or co-investigator of project.

Measuring System States

1. *Multimodal invasive carp deterrent study at Barkley Lock and Dam (BioAcoustic Fish Fence)*
Partners: U.S. Geological Survey (USGS), U.S. Fish and Wildlife Service (USFWS), Kentucky Department of Fisheries and Wildlife Resources, and Tennessee Wildlife Resources Agency
2. *Feasibility and efficiency comparisons of invasive carp sampling techniques in waters of the Lower Mississippi River*
Partners: USGS, Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP), U.S. Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC), Mississippi Cooperative Research Unit and Mississippi State University (MSCRU / MSU), North Carolina Cooperative Research Unit and North Carolina State University (NCCRU / NCSU), and Arkansas Game and Fish Commission
3. *Early detection and rapid response of invasive carps in the Tennessee–Tombigbee Waterway*
Partners: USGS, MDWFP, and MSCRU / MSU
4. *The Telemetry Lookup Tool: A simple digital tool to foster data sharing and scope needs of the acoustic telemetry sampling community*†
Partners: 24 partners from State and Federal agencies and academic institutions^a
5. *Rock outcrop detection using digital elevation models and conditional inference trees*†
6. *Leveraging amphibian biofluorescence to increase detection probability and accuracy of abundance estimates*†
Partners: Millsaps College and MSU

7. *Occupancy of fishes using time-to-detection modeling*†

Partners: Oklahoma Department of Wildlife Conservation (ODWC) and Oklahoma Fish and Wildlife Conservation Office (OKFWCO)

Relating Human Values and System States

8. *Using multiobjective programming to uncover mutually favorable harvest regulations in participatory fisheries governance*†

Partners: University of Florida and MSU Coastal Research and Extension Center

Finding Optimal Solutions and Decision Support

9. *Optimizing deterrent and removal strategies to slow the spread of invasive carps in the Tennessee and Cumberland Rivers including the Tennessee–Tombigbee Waterway*†

Partners: Kentucky Department of Fish and Wildlife Resources (KDFWR), MDWFP, TWRA, Alabama Department of Conservation and Natural Resources (ADCNR), USGS, USFWS, USACE, and Tennessee Valley Authority (TVA)

10. *An invasive carp population management model for the Lower Mississippi River and Arkansas–Red–White Rivers Sub-basins Invasive Carp Partnership*†

Partners: 14 partners from State and Federal agencies (not including partner academic institutions)^b

11. *Developing an multi-scale adaptive management framework to prevent, control, and manage invasive carp in the Mississippi River Basin*†

Partners: Currently 12 partners from State and Federal agencies^c

Hypothesis Testing and Adaptive Management

12. *Estimating population dynamics using spatially explicit removal / depletion models*†

Partners: USFWS National Wildlife Refuge System Strategic Resource Management and USGS Columbia Environmental Research Center (CERC)

13. *Conserving native walleye (*Sander vitreus*) of the Mobile River Basin*†

Partners: MDWFP, ADCNR, and U.S. Forest Service (USFS)

14. *Piebald madtom (*Noturus gladiator*) species status assessment*

Partners: MSCRU / MSU, NCCRUC / NCSU, and USFWS Mississippi Ecological Services Field Office

15. *Fish assemblages of Lake George, Panther Swamp National Wildlife Refuge, in relation to season and hydrology with an emphasis on a conservation species, alligator gar (*Atractosteus spatula*)*†

Partners: USFWS Panther Swamp National Wildlife Refuge

Publications

Citations: 115 | h-index: 6 | i10-index: 4 | Names of mentee co-authors underlined.

Full Articles

1. **Aldridge, C.A.**, and M.E. Colvin. (In press). *Writing SMART objectives for natural resource and environmental management*. Ecological Solutions and Evidence.
2. **Aldridge, C.A.**, and S.A. Rush. (In press). *Eastern Black Kingsnake (*Lampropeltis nigra*) dorsal scale coloration primarily adapted for thermoregulation*. Herpetological Journal.
3. **Aldridge, C.A.**, and E.C. Boone. (2022). *Simple models to quickly estimate the probable range of data-limited riverine fishes*. River Research and Applications 38(6):1154–1166. Available from <http://dx.doi.org/10.1002/rra.3969>

4. Faucheux, N.M., A.R. Sample, **C.A. Aldridge**, D.M. Norris, C. Owens, V.R. Starnes, S. Vanderbloemen, L.E. Miranda. (2022). *Reservoir attributes display cascading spatial patterns along river basins*. *Water Resources Research* 58(1):e2021WR029910. Available from <https://doi.org/10.1029/2021WR029910>
5. **Aldridge, C.A.**, D.M. Norris, M.E. Colvin, and L.E. Miranda. (2022). *Retention and dimensional changes of evergreen brush piles within a flood control reservoir*. *Journal of Fish and Wildlife Management* 13(1):223–235. Available from <https://doi.org/10.3996/JFWM-21-033>
6. **Aldridge, C.A.**, T.P. Rogers, W.T. Banks, and S.A. Rush. (2021). *Duped by false-negative errors: A case study with the Mediterranean Gecko*. *Herpetological Conservation and Biology* 16(3):525–533. Available from http://www.herpconbio.org/Volume_16/Issue_3/Aldridge_etal_2021.pdf
7. Omer, A.R., **C.A. Aldridge**, and B.H. Baker. (2021). *Outflow hydrology of tailwater recovery systems with comparisons to a control catchment*. *Irrigation and Drainage* 70(4):786–796. Available from <https://doi.org/10.1002/ird.2551>
8. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2021). *Themes of contemporary inland fisheries goals*. *Fisheries* 46(1):34–39. Available from <https://doi.org/10.1002/fsh.10507>
9. **Aldridge, C.A.** (2020). *Road-effects on plethodontid counts in a Southeastern Plains forest*. *Herpetology Notes* 13:505–512. Available from <https://www.biotaxa.org/hn/article/view/57569>
10. Brooks, J.P., R.K. Smith, **C.A. Aldridge**, B. Chaney, A.R. Omer, J. Dentinger, G.M. Street, and B.H. Baker. (2020). *A preliminary investigation of wild pig (*Sus scrofa*) impacts on water quality*. *Journal of Environmental Quality* 49(1):27–37. Available from <https://doi.org/10.1002/jeq2.20036>
11. **Aldridge, C.A.**, B.H. Baker, and A.R. Omer. (2019). *Investigation of short-term effects of winter cover crops on compaction and total soil carbon in a long-term no-till agricultural system*. *Journal of Soil and Water Conservation* 74(1):78–85. Available from <https://doi.org/10.2489/jswc.74.1.77>
12. Baker, B.H., J.M. Prince Czarnecki, A.R. Omer, **C.A. Aldridge**, R. Kröger and J.D. Prevost. (2018). *Nutrient and sediment runoff from agricultural landscapes with varying suites of conservation practices in the Mississippi Alluvial Valley*. *Journal of Soil and Water Conservation* 73(1): 75–85. Available from <https://doi.org/10.2489/jswc.73.1.75>

Notes and Columns

1. Baker, B.H., **C.A. Aldridge**, A.R. Omer, and M. Hill. (2023). *Water: Availability and use*. Mississippi State University Extension, Mississippi State University. Available from https://extension.msstate.edu/sites/default/files/publications/publications/P3011_web.pdf
2. **Aldridge, C.A.**, B.H. Baker, and A.R. Omer. (2023). *Concerns about long-term water security*. Mississippi State University Extension, Mississippi State University. Available from https://extension.msstate.edu/sites/default/files/publications/publications/P2997_web.pdf
3. **Aldridge, C.A.** (2021). *How to decide where to go to grad school*. *Fisheries* 46(5):245–249. Available from <https://doi.org/10.1002/fsh.10605>
4. Banks, T., T.P. Rogers, and **C.A. Aldridge**. (2020). Geographic distribution: *Hemidactylus turcicus* (Mediterranean Gecko). USA: MISSISSIPPI: CLAY CO. *Herpetological Review* 51(3):541.
5. **Aldridge, C.A.** (2020). *Computing skills beyond R for fisheries students*. *Fisheries* 45(3):116–120. Available from <https://doi.org/10.1002/fsh.10392>

6. Rogers, T., T. Banks, and C.A. Aldridge. (2020). Geographic distribution: *Hemidactylus turcicus* (Mediterranean Gecko). USA: MISSISSIPPI: LOWNDES CO. Herpetological Review 51(1):77.
7. Dennison, J.L. and C.A. Aldridge. (2019). Geographic distribution: *Hemidactylus turcicus* (Mediterranean Gecko). USA: ALABAMA: LAUDERDALE CO. Herpetological Review 50(3):527.
8. Baker, B.H., C.A. Aldridge, and A.R. Omer. (2018). *Assessing and protecting water quality in the home and community*. Mississippi State University Extension, Mississippi State University. Available from <http://extension.msstate.edu/sites/default/files/publications/p3242.pdf>
9. Aldridge, C.A. and B.H. Baker. (2017). *Watersheds: Role, importance, and stewardship*. Mississippi State University Extension, Mississippi State University. Available from <http://extension.msstate.edu/sites/default/files/publications/publications/p3082.pdf>
10. Baker, B.H., A.R. Omer, and C.A. Aldridge. (2017). *Water: Sink to sea*. Mississippi State University Extension, Mississippi State University. Available from <http://extension.msstate.edu/sites/default/files/publications/publications/p3074.pdf>

Agency and Academic Reports

1. Aldridge, C., N. Jackson, R. Neeley, E. Pherigo, and G. Conover, editors. (2023). *Monitoring and Response Plan for Invasive Carp in the Mississippi River Basin, Fiscal Year 2023*. Invasive Carp Advisory Committee, Mississippi Interstate Cooperative Resource Association, Carbondale, IL. Available from
2. Aldridge, C.A., and E.C. Boone. (2023). *Invasive Carps in the Tennessee–Tombigbee Waterway: An Overview of Historical Information and Recent Activities*. Lower Mississippi River Fish and Wildlife Conservation Office Station Report 2023-01-001. U.S. Fish and Wildlife Service, Tupelo, MS. Available from <https://ecos.fws.gov/ServCat/DownloadFile/230359>
3. Aldridge, C., N. Jackson, R. Neeley, E. Pherigo, and G. Conover, editors. (2022). *Monitoring and Response Plan for Invasive Carp in the Mississippi River Basin, Fiscal Year 2022*. Invasive Carp Advisory Committee, Mississippi Interstate Cooperative Resource Association, Carbondale, IL. Available from <http://micrarivers.org/wp-content/uploads/2023/02/2022-MRP-Final-no-cover-page-1.pdf>
4. Aldridge, C.A. (2022). *Towards Structured Planning and Learning at the State Fisheries Agency Scale* (Ph.D. Dissertation). Scholars Junction: Mississippi State University Institutional Repository. (5705). Available from <https://scholarsjunction.msstate.edu/td/5705>
5. Aldridge, C., N. Jackson, R. Neeley, E. Pherigo, and G. Conover, editors. (2021). *2021 Monitoring and Response Plan for Invasive Carp in the Mississippi River Basin*. Invasive Carp Advisory Committee, Mississippi Interstate Cooperative Resource Association, Carbondale, IL. Available from http://micrarivers.org/wp-content/uploads/2022/04/2021-MRP-Final_red.pdf
6. Aldridge, C.A., M.E. Colvin, and L.E. Miranda. (2021). *FRASps: A Planning Support Tool for Inland Fisheries Management*. Progress Report July 1, 2020 – June 30, 2021 Mississippi Department of Wildlife, Fisheries, and Parks, Jackson, MS.
7. Aldridge, C.A. and A.R. Omer. (2021). *Tailwater Recovery Systems Show Limited Impact on Basin-scale Hydrology in the Mississippi Delta*. REACH, Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.

8. **Aldridge, C.A.**, M.E. Colvin, and L.E. Miranda. (2020). *FRASps: A Planning Support Tool for Inland Fisheries Management*. Progress Report July 1, 2019 – June 30, 2020. Mississippi Department of Wildlife, Fisheries, and Parks, Jackson, MS.
9. Miranda, L.E., M. Colvin, A. Shamaskin, and **C.A. Aldridge**. (2019). *Review, Revision, and Development of New Monitoring Protocols to Facilitate the Meeting of Goals and Objectives of Freshwater Fisheries Management in Mississippi*. Mississippi Department of Wildlife, Fisheries, and Parks, Jackson, MS.
10. **Aldridge, C.A.** (2018). *A Report for Morton Farms on the Effects of Winter Cover on Selected Soil Metrics*. REACH, Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.
11. **Aldridge, C.A.** and B.H. Baker. (2018). *Mississippi State University 201 and 202 Monitoring Network for Mike Graves and the USDA–Natural Resource Conservation Service Annual Report, January 2018*. REACH, Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.
12. **Aldridge, C.A.** and B.H. Baker. (2017). *Mississippi State University 201 and 202 Monitoring Network for Mike Graves and the USDA–Natural Resource Conservation Service Semi-annual Report, July 2017*. REACH, Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.
13. **Aldridge, C.A.** (2017). *The Effect of Road Crossings on Stream-associated Salamanders within Holly Springs National Forest* (M.S. Thesis). ProQuest Dissertations and Theses Global. (1925911777). Available from <https://search.proquest.com/docview/1925911777>
14. **Aldridge, C.A.** and B.H. Baker. (2017). *Mississippi State University 201 and 202 Monitoring Network for Mike Graves and the USDA–Natural Resource Conservation Service Annual Report, January 2017*. REACH, Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.
15. **Aldridge, C.A.** and B.H. Baker. (2016). *Mississippi State University 201 and 202 Monitoring Network for Mike Graves and the USDA–Natural Resource Conservation Service Semi-annual Report, July 2016*. REACH, Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.

Manuscripts in Progress

1. **Aldridge, C.A.**, A. Moczulski, K. Tramel, and E.C. Boone. (Revision submitted). *Detecting sheer rock outcrops using digital elevation models for ecological conservation*. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing.
2. Baker, B.H., A.G. Firth, A. Lucore, **C.A. Aldridge**, A.R. Omer, Jamie Dyer, and R. Kröger. (Revision submitted). *A field-scale investigation of cover crop effects on runoff water quality in the mid-south*. Agriculture, Ecosystems & Environment.
3. **Aldridge, C.A.**, and M.E. Colvin. (Revision requested). *Benefits and challenges in standardizing data management and analyses: a multidecadal inland fisheries monitoring program review*. Fisheries Management and Ecology.

Presentations

Total: 35 | Invited: 7 | Names of mentee co-authors underlined.

Oral

1. **Aldridge, C.A.** (2023-09-26). *Connecting the dots: Highlights from the Lower Mississippi River and Arkansas–Red–White Rivers Sub-basins Invasive Carp Partnership’s FY24 kickoff meeting, 16–18 May 2023*. The 2024 Lower Mississippi River Conservation Committee Annual Meeting. ERDCWERX, Vicksburg, MS.

2. **Aldridge, C.A.** and S.A. Rush. (2023-04-20). *Eastern Black Kingsnake (Lampropeltis nigra) dorsal scale coloration is optimized for thermoregulation*. Mississippi Amphibian and Reptile Conservation Meeting. Mississippi Museum of Natural Science, Jackson, MS.
3. **Aldridge, C.A.** and M.E. Colvin. (2023-03-21). *The tale of a fisheries bureau dipping its toe into "Lake Decision Analysis"*. 2023 Society of Decision Professionals Annual Conference. C. Baldwin Hotel, Houston, TX.
4. Neeley, R., and **C.A. Aldridge**. (2022-03-22). *Towards inter-sub-basin management of invasive carp*. Joint Meeting of the Upper and Lower Mississippi River Conservation Committees. Drury Suites, Cape Girardeau, MO.
5. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2021-04-08). *Towards standardized fisheries management plans*. 2021 Southern Division–American Fisheries Society Meeting. Virtual.
6. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2021-03-25). *Towards standardized fisheries management plans*. 47th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Virtual.
7. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2021-03-02). *Standardized management plans: A glance into the future*. 2021 Iowa DNR Fisheries Statewide Meeting. Virtual.
8. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2020-09-14–25). *Standardized management plans: A glance into the future*. 2020 American Fisheries Society Meeting. Virtual.
9. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2020-02-20–23). *Same profession different jobs — fisheries goals across the US*. 2020 Southern Division–American Fisheries Society Meeting. Little Rock Marriott–Downtown, Little Rock, AR.
10. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2020-02-12–14). *Same profession different jobs — fisheries goals across the US*. 46th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Courtyard Gulfport Beachfront, Gulfport, MS.
11. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2020-02-12–14). *For management plans, consult a computer?* 46th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Courtyard Gulfport Beachfront, Gulfport, MS.
12. **Aldridge, C.A.** (2019-11-14). *Stream site selection using conditioned Latin hypercube sampling*. Southeastern Fishes Council 45th Annual Meeting. Holiday Inn at World's Fair Park, Knoxville, TN.
13. Baker, B., **C.A. Aldridge**, A. Lucore, J. Dyer, and R. Kroger. (2019-06-23–25). *Effects of cover crops on edge-of-field runoff in row-crop production systems*. Southern Region Water Conference, Texas A&M Hotel and Conference Center, Texas A&M University, College Station, TX.
14. **Aldridge, C.A.** (2019-05-02). *A planning support tool for MDWFP statewide fisheries management*. Mississippi Cooperative Fish and Wildlife Research Unit Annual Coordinating Committee Meeting, Berryman Institute, Mississippi State University, Starkville, MS.
15. Wilmoth, B.M., D.A. Schumann, B.M. Richardson, **C.A. Aldridge**, and M.E. Colvin. (2019-02-20–22). *Ontogeny of Southern Brook Lamprey, Ichthyomyzon gagei, with emphasis on abundance, distribution, and morphology in a small watershed*. 45th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Mississippi Museum of Natural Science, Jackson, MS. Available from <https://tinyurl.com/y456pvtd>
16. **Aldridge, C.A.**, B.M. Richardson, D.A. Schumann, and M.E. Colvin. (2018-11-08). *Identifying barriers to the use and detection of passive integrated transponder (PIT) tags in Southern Brook Lamprey am-*

mocoetes (*Ichthyomyzon gagei*, Hubbs and Trautman, 1937). Southeastern Fishes Council 44th Annual Meeting. Hickory Knob State Park Resort, McCormick, SC. Available from <https://tinyurl.com/y8hvb2sw>

17. **Aldridge, C.A.** (2017). *The effect of road crossings on stream-associated salamanders within Holly Springs National Forest*. Departmental Seminar Series. Biology, University of Mississippi, Oxford, MS.
18. **Aldridge, C.A.** (2016). *Results: Comparisons of stream-associated salamander abundance and richness in road-crossed and road-free low-order streams in Holly Springs National Forest*. Brown Bag Presentation Series. Holly Springs Ranger District, Oxford, MS.
19. **Aldridge, C.A.** (2015). *The effect of road crossings on stream-associated salamanders within Holly Springs National Forest*. Departmental Seminar Series. Biology, University of Mississippi, Oxford, MS.
20. Bohenek, J. and **C.A. Aldridge**. (2015). *Chittum Tubby Pond cleanup: A restoration effort*. Wetland Ecology Course. Biology, University of Mississippi, Oxford, MS. Available from <https://youtu.be/VwtDOspstGo>
21. **Aldridge, C.A.** (2014). *Facts for flow study: Bankhead National Forest, AL*. GIS, Spatial Analysis, and Modeling. Biological and Environmental Sciences, Alabama A&M University, Huntsville, AL.
22. **Aldridge, C.A.** (2014-02-05). *Assessing the impact of active forest management on watershed stream flow, turbidity, and dissolved oxygen*. Center for Forest Ecosystems Assessment, Alabama A&M University, Huntsville, AL.

Poster

1. Boone, E.C. and **C.A. Aldridge**. (2024-02-14–16). *Fostering data sharing and scoping needs through digital tools: Experiences using an acoustic telemetry lookup tool (TLT)*. 50th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Candence Bank Convention Center – West Hall, Tupelo, MS.
2. Boone, E.C. and **C.A. Aldridge**. (2024-01-31–02-04). *Fostering data sharing and scoping needs through digital tools: Experiences using an acoustic telemetry lookup tool (TLT)*. 2024 Southern Division–American Fisheries Society Meeting. Chattanooga Convention Center, Chattanooga, TN.
3. **Aldridge, C.A.**, A. Moczulski, K. Tramel, and E.C. Boone. (2023-04-20). *Locating Mississippi's imperiled rock outcrops with slope analysis of high-resolution digital elevation models*. Mississippi Amphibian and Reptile Conservation Meeting. Mississippi Museum of Natural Science, Jackson, MS.
4. **Aldridge, C.A.**, and **E.C. Boone**. (2022-02-16). *Simple models to quickly estimate the probable range of data-limited riverine fishes*. 48th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Double Tree by Hilton, Hattiesburg, MS.
5. **Aldridge, C.A.**, L.E. Miranda, and M.E. Colvin. (2020-02-20–23). *For management plans, consult a computer?* 2020 Southern Division–American Fisheries Society Meeting. Little Rock Marriott–Downtown, Little Rock, AR.
6. **Aldridge, C.A.**, D.M. Norris, H.R. Hatcher, G. Coppola, M.E. Colvin, and L.E. Miranda. (2020-02-12–14). *Brush piles: Understanding structural dynamics to help plan habitat management*. 46th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Courtyard Gulfport Beachfront, Gulfport MS.

7. Bush, C., S.A. Rush, C. Bethel, and **C.A. Aldridge**. (2019-08-02). *A web-based interface designed to promote biological conservation and education within Mississippi*. Shackouls Honors College 2019 Summer Undergraduate Research Symposium, Mississippi State University, Starkville, MS.
8. Wilmoth, B.M., D.A. Schumann, B.M. Richardson, **C.A. Aldridge**, and M.E. Colvin. (2019-04-16). *Ontogeny of Southern Brook Lamprey (*Ichthyomyzon gagei*) with emphasis on abundance, distribution, and morphology in a small watershed*. Shackouls Honors College 2019 Spring Undergraduate Research Symposium, Mississippi State University, Starkville, MS. Available from <https://tinyurl.com/y536pzdj>
9. **Aldridge, C.A.**, M.E. Colvin, and L.E. Miranda. (2019-02-20–22). *Early look: Performance of machine learning to classify age from age-length data*. 45th Annual Meeting of the Mississippi Chapter of the American Fisheries Society. Mississippi Museum of Natural Science, Jackson, MS. Available from <https://tinyurl.com/y28gqycg>
10. Richardson, B.M., **C.A. Aldridge**, D.A. Schumann, M.E. Colvin. (2018-08-20). *Assessing viability of passive integrated transponder (PIT) tags for ecological studies of lamprey ammocoetes*. 148th Annual Meeting of the American Fisheries Society, Atlantic City, NJ. Available from <https://tinyurl.com/yazju8mm>
11. Chaney, B., J.P. Brooks, **C.A. Aldridge**, A.R. Omer, G.M. Street, and B.H. Baker. (2017-04-13). *Preliminary investigation of Feral Hog impacts on water quality*. Shackouls Honors College 2017 Spring Undergraduate Research Symposium, Mississippi State University, Starkville, MS. Available from <https://tinyurl.com/y9p63j9q>
12. **Aldridge, C.A.** (2014). *Influences of forest management on flow regime, Bankhead National Forest, AL*. STEM Day 2014. Biological and Environmental Sciences, Alabama A&M University, Huntsville, AL.

Radio and Podcasts

1. **Aldridge, C.A.** (2017-11-15). *White-tailed deer: Hunting regulations and concerns* [Radio program]. In J. Campbell and J. Webster (Hosts and Producers), Tennessee Valley Outdoor Report Live. Florence, AL:WSBM.

Workshops and Outreach

1. **Aldridge, C.A.**, and R.M. Robison. (2022-11-30). *USAJobs resume workshop*. Mississippi State University Student Sub-unit of the American Fisheries Society. Tully Auditorium, Thompson Hall, Mississippi State University, Starkville, MS.
2. Dentinger, J., **C.A. Aldridge**, and V. Starnes. (2020-09-23). *Basics of R*. Mississippi State University Department of Wildlife, Fisheries and Aquaculture Graduate Student Association. Virtual.
3. Boudreau, M.R. and **C.A. Aldridge**. (2019-12-11–13). *Introductory stats in R*. Mississippi State University Department of Wildlife, Fisheries and Aquaculture. Berryman Cabin at Mississippi State University, Starkville, MS.
4. **Aldridge, C.A.** and A.B. Alford. (2019-11-13). *An ecologist's first encounter with R*. Southeastern Fishes Council 45th Annual Meeting. Holiday Inn at World's Fair Park, Knoxville, TN.
5. **Aldridge, C.A.**. (2018-11-06). *Equipment and video demonstration of stream fish sampling techniques*. New Hope STEM Night. New Hope High School, New Hope, MS.

6. Omer, A.R., B.H. Baker, B., and **C.A. Aldridge**. (2017). *Water resources lecture and demonstrations for 6th–8th graders*. 2017 Conservation Camp–Day Camp Edition. Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.
7. Omer, A.R., B.H. Baker, **C.A. Aldridge**, and A. Firth. (2017). *Water resources lecture and demonstrations for 7th graders*. 2017 Conservation Camp–Wildlife and Recreation Edition, Wildlife, Fisheries and Aquaculture, Mississippi State University, Starkville, MS.
8. Baker, B.H., A.R. Omer, and **C.A. Aldridge**. (2017). *Water resources lecture and demonstrations*. Grade 5 Classrooms. Lawndale Elementary, Tupelo, MS.
9. Baker, B.H., A. Jacobs, J. Estes, and **C.A. Aldridge**. (2017-02-23). *Cover crops field day*. MSU Extension and USDA–NRCS field day. Graves Farm, Ripley, MS.

Contributed Blogposts

1. **Aldridge, C.A.** (2020-03-12). *Same profession different jobs — fisheries goals across the US*. Available from <https://tinyurl.com/4fs3yc88>
2. **Aldridge, C.A.** (2019-10-25). *There's models and then there's inference*. Available from <https://tinyurl.com/bd2d3aan>
3. **Aldridge, C.A.** (2019-09-26). *Reasoning in ecology, conservation biology, and natural resource management*. Available from <https://tinyurl.com/y3fb63fg>
4. **Aldridge, C.A.** (2019-04-03). *Story Framing with the Message Box: A tool for writing a SUCCES story*. Available from <https://tinyurl.com/yynbj44>
5. **Aldridge, C.A.** (2019-03-22). *Design and decisions, part II: Using crunched numbers in decision support*. Available from <https://tinyurl.com/y4uq64xb>
6. **Aldridge, C.A.** (2019-01-25). *Design and decisions, part I: Thinking about the decision to be made before the numbers are crunched*. Available from <https://tinyurl.com/y5x4wqex>
7. **Aldridge, C.A.** (2018-10-18). *You so random: Selecting random stream sampling locations using R*. Available from <https://tinyurl.com/y473zkbz>
8. **Aldridge, C.A.** (2018-10-05). *The effects of sediment on PIT tag detection—The setup*. Available from <https://tinyurl.com/y38sjsk7>
9. **Aldridge, C.A.**, B.M. Richardson, D.A. Schumann, and M.E. Colvin. (2018-10-05). *Lamprey abstract for Southeastern Fishes Council meeting*. Available from <https://tinyurl.com/y4qbdhwa>

Grants and Agreements

Total funding: \$364,142 | †Denotes competitive award. | ‡Denotes agency agreement.

1. U.S. Fish and Wildlife Service, Southeast Region Inventory and Monitoring Branch† \$30,000
Boone, E.C., and **C.A. Aldridge**. (2023). *Fish assemblages of Lake George, Panther Swamp National Wildlife Refuge, in relation to season and hydrology with an emphasis on a conservation species, Alligator Gar (*Atractosteus spatula*)*.
2. U.S. Fish and Wildlife Service, Southeast Region Fish and Aquatic Conservation† \$22,500
Rodgers, A.J, E.C. Boone, and **C.A. Aldridge**. (2023). *Supporting telemetry networks in the Lower Mississippi and Mobile River Basins*.

3. U.S. Fish and Wildlife Service, Mississippi Ecological Services Field Office‡ \$12,000
Rodgers, A.J, E.C. Boone, and **C.A. Aldridge**. (2023). *Assessment of Piebald Madtom (Noturus gladiator) status in historical drainages of Mississippi and feasibility of targeted passive capture gears.*
4. Reservoir Fisheries Habitat Partnership† \$190,116
Miranda, L.E., and **C.A. Aldridge**. (2020). *Vulnerability of Reservoir Fish Habitats to Climate Change.*
5. Mississippi Department of Wildlife, Fisheries, and Parks† \$109,526
Miranda, L.E., M.E. Colvin and **C.A. Aldridge**. (2019). *FRASps: A planning support tool for inland fisheries management.*

Awards and Scholarships

Total amount: \$181,585

1. U.S. Fish and Wildlife Service **2023**
Individual Cash Award \$2,140
2. U.S. Fish and Wildlife Service
Individual Time Off Award (\$206 equivalent) 5 hr
3. U.S. Fish and Wildlife Service
Southeast Region Regional Director’s Award for At-Risk Species Conservation (Team) \$–
4. U.S. Fish and Wildlife Service
Midwest Region Team Excellence Award \$1,500
5. U.S. Fish and Wildlife Service **2022**
Individual Cash Award \$1,190
6. U.S. Fish and Wildlife Service
Individual Time Off Award (\$1,145 equivalent) 30 hr
7. Mississippi State University **2022**
Gleusing Outstanding PhD Student Award \$100
8. Southern Division—American Fisheries Society
Robert M. Jenkins Memorial Reservoir Research Scholarship \$500
9. Mississippi State University **2020**
Fernando Vizcarra Memorial Photo Contest (Fall) (1st Place) \$300
10. Southern Division—American Fisheries Society
Student Lodging Award \$725
11. Southeastern Fishes Council **2019**
Boschung Student Travel Award \$100
12. American Association for the Advancement of Science \$79
Program for Excellence in Science
13. Mississippi State University **2018**
Fernando Vizcarra Memorial Photo Contest (Fall) (3rd Place) \$–
14. Southeastern Fishes Council
Boschung Student Travel Award \$100

15. Mississippi State University <i>Graduate Research Assistantship</i>	2018–2021 \$25,000 / yr
16. University of Mississippi <i>Graduate Teaching Assistantship</i>	2014–2016 \$18,000 / yr
17. NUCOR Steel <i>Foundation Scholarship</i>	2008–2012 \$40,000
18. Freed-Hardeman University <i>Pate–Sterling Memorial Scholarship</i>	2008–2009 \$10,000

Teaching Interests

- Principles of Decision Analysis in Natural Resources: An introduction to the foundations of decision analysis with applications to natural resources and conservation, and a survey of techniques for collaborative problem framing, elicitation and structuring of management objectives, identification of feasible alternatives, modeling of consequences, and analyzing tradeoffs, optimization, sensitivity analysis, and value of information analysis. cursory examination will be given to study design, workshop and meeting facilitation, and linked decisions and adaptive management.
- Ecology and Management of Species Invasions: A three-pronged course for (1) investigating the conditions and mechanisms that enable species to quickly expand their range and the impacts they cause ecologically, economically, socially, and culturally; (2) surveying major planning and management frameworks and to plan and respond to species invasions (e.g., early detection — rapid response, integrated pest management, horizon scanning, and risk assessment); and (3) experiential learning of management actions applied by practicing biologists in the region.
- Computing and Data Management for Natural Resources: An introduction to basic programming, file management and version control, scientific and statistical computing, data wrangling, visualization, and management, and scientific typesetting, report automation, and management of online resources.

Teaching Experience

ADJUNCT eLEARNING BIOLOGY INSTRUCTOR 2018–2020
Northwest Mississippi Community College, Senatobia, MS
eLearning and Natural Sciences Departments

- Instructed elementary biological science and laboratory simulations (24 hrs total).
- Proctored exams and determined final grades.
- "Meets or Exceeds Expectations" on all performance reviews.

GRADUATE TEACHING ASSISTANT 2014–2016
University of Mississippi, Oxford, MS
Department of Biology

- Instructed introductory biology, human anatomy and physiology, and ecological science laboratories (22 hrs total).
- Proctored exams.
- Received an overall average of 3.89 / 4.00 on student reviews.

LABORATORY TEACHING ASSISTANT 2011–2012
University of North Alabama, Florence, AL
Alabama Math, Science, and Technology Initiative: Science in Motion

- Prototyped laboratory demonstrations.

- Maintained laboratory equipment and supplies.
- Assisted with classroom demonstrations and instruction to secondary school teachers.

GUEST LECTURER

Mississippi State University, Starkville, MS

Wildlife Fisheries and Aquaculture

Course: Herpetology 2020-02-28

- Presented a lecture, *Location. Location. Location.*, on dispersal, migration, and movement of herpetofauna.

Course: Fisheries Management 2019-10-02

- Presented a lecture, *Management Plans*, on the process of developing fisheries management plans, from framing background information to specifying objectives and actions to expected results and logistic of monitoring and evaluation.

University of Mississippi, Oxford, MS

Department of Biology

Course: Ecology 2015-09-28

- Presented a lecture, *Population Dynamics*, based on Molles Jr., M.C. (2008) "Ecology: Concepts and Applications, 4th Edition."

Academic and Community Service

SESSION COMMITTEE MEMBER 2024

Society of Decision Professionals

2024 Annual Conference and Workshops, Arlington, VA

Natural Resources Session

SYMPOSIUM CO-HOST 2024

Southern Division—American Fisheries Society

2024 Meeting, Chattanooga, TN

Invasive carp in Southeastern waters and

Consequences of the Tennessee-Tombigbee Waterway and adjacent waters on biological assemblages

EXECUTIVE COMMITTEE MEMBER 2019–2021

Mississippi State University, Starkville, MS

Wildlife, Fisheries, and Aquaculture

Departmental Graduate Student Association

COMMITTEE MEMBER 2020

Mississippi State University, Starkville, MS

Wildlife, Fisheries, and Aquaculture

Departmental Graduate Student Association

Nabi Award Selection Committee

STUDENT MODERATOR 2020

Southern Division—American Fisheries Society

2020 Meeting, Little Rock, AR

STUDENT MODERATOR 2020

Mississippi Chapter of the American Fisheries Society

46th Annual Meeting, Gulfport, MS

JUDGE Mississippi State University, Starkville, MS Shackouls Honors College Undergraduate Research Showcase	Aug. 2019
JUDGE Mississippi State University, Starkville, MS Shackouls Honors College Undergraduate Research Showcase	Apr. 2019
JUDGE Mississippi State University, Starkville, MS 12 th Annual Biological Undergraduate Research Program	2019
COMMITTEE MEMBER Mississippi State University, Starkville, MS Wildlife, Fisheries, and Aquaculture Departmental Graduate Student Association Nabi Award Selection Committee	2019
STUDENT MODERATOR Mississippi Chapter of the American Fisheries Society 45 th Annual Meeting, Jackson, MS	2019
COUNCIL MEMBER Columbus City Schools, Columbus, MS Cook Elementary P-16 Community Engagement Council	2018–2019
STUDENT MODERATOR Southeastern Fishes Council 44 th Annual Meeting, Hickory Knob State Park Resort, McCormick, SC	2018
VOLUNTEER ConserVANTion and the MSU Biology Graduate Student Association Earth Day Prairie Restoration, Osborne Prairie, Osborne, MS	2017
SOCIAL AND PHILANTHROPIC CHAIR University of Mississippi, Oxford, MS Graduate Student Council	2015–2016
Professional Affiliations American Fisheries Society	2018–Present
<ul style="list-style-type: none"> • National • Southern Division • Mississippi Chapter • Mississippi State University Student Sub-Unit <ul style="list-style-type: none"> – DEAN’S COUNCIL REPRESENTATIVE – TREASURER 	2020–2021 2018–2020
Southeastern Partners in Amphibian and Reptile Conservation	2016–Present
Southeastern Fishes Council	2018–2021

Organization of Fish and Wildlife Information Managers	2021–2021
American Society of Ichthyologists and Herpetologists	2018–2021
Association of Southeastern Biologists	2017–2021

Manuscript Reviews

- Agency: U.S. Fish and Wildlife Service (2) and U.S. Geological Survey (2).
- Journal: *Environmental Monitoring and Assessment* (1), *Herpetological Conservation and Biology* (1), and *Herpetology Notes* (1).
- Declined: *Journal of Soil and Water Conservation* (2)

Program Matriculation, Trainings, and Aquired Skills

Certificate Programs

U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Decision Analysis for Natural Resources Certificate</i>	2022–Present
Mississippi State University, Starkville, MS Center for Teaching and Learning <i>Preparing Future Faculty Certificate</i>	2020
Mississippi State University, Starkville, MS Center for Teaching and Learning <i>Best Practices in Online Instruction Certificate</i>	2018
U.S. Environmental Protection Agency, Washington, DC The Watershed Academy Web-Based Training Program <i>Watershed Management Training Certificate</i>	2015

Selective Programs

U.S. Fish and Wildlife Service, Southeast Region, Atlanta, GA <i>2022–2023 Southeast Region Mentoring Program</i>	2023
Alabama Youth Leadership Development Program, Vestavia Hills, AL Auburn University at Montgomery, Montgomery, AL <i>2007 Student Leadership Conference</i>	2007
The American Legion Department of Alabama The University of Alabama, Tuscaloosa, AL <i>2007 Alabama Boys State</i>	2007

Professional Trainings

American Red Cross <i>Adult and Pediatric 1st Aid / CPR / AED</i> Certificate ID: 0190HFT	Jun. 2023
U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Decision Analysis: Facilitation and Elicitation</i> Course ID: FWS-ALC3190	Jun. 2023

U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Decision Analysis: Tools</i> Course ID: FWS-ALC3191-ONLINE	Feb. 2023
U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Introduction to Structured Decision Making</i> Course ID: FWS-ALC3171	Jun. 2022
U.S. Department of the Interior, Washington, DC Tennessee National Wildlife Refuge, Linden, TN <i>Motorboat Operator Certification Course</i> Course ID: FWS-SAF4102	May 2022
U.S. General Services Administration <i>SmartPay Travel Card Training (Account Holder)</i>	Feb. 2022
U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Electrofishing Safety</i> Course ID: FWS-CSP2202A	Dec. 2021
U.S. Geological Survey, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Scientific Integrity Training</i> Course ID: USGS-A-17-168	Dec. 2021
U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Fish Population Dynamics and Assessment</i> Course ID: FWS-CSP2308-ONLINE	Oct. 2021
U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Fundamentals of Structured Decision Making</i> Course ID: FWS-ALC3170-ONLINE	Sep. 2021
U.S. Fish and Wildlife Service, Washington, DC National Conservation Training Center, Shepardstown, WV <i>Fundamentals of Structured Decision Making</i> Course ID: FWS-ALC3170-ONLINE	Sep. 2021
National Safety Council, Chicago, IL <i>Defensive Driving Course (10th Edition)</i> Course ID: FWS-SAF-DDCC Reference #: E2DFB0-1608-3733441	Jul. 2021
U.S. Forest Service, Washington, DC Southern Research Station, Oxford, MS <i>Crayfishes of the Southeastern USA: A workshop</i>	2020

Mississippi Virtual Community College Academy <i>All About eLearning</i>	2019
Mississippi State University, Starkville, MS Center for Teaching and Learning (CTL) <i>Active Learning Techniques Workshop</i>	2018
Mississippi Virtual Community College Academy <i>Teaching Effectively Online: Canvas Basics</i>	2017
esri Training Academy <i>Building Models for GIS Analysis Using ArcGIS</i>	2014

Selected coursework

- Ph.D.: Decision Support Systems, Conservation and Natural Resource Decision Making, Estimation of Wildlife Populations, Management of Impounded Rivers, and Improving Classroom Instruction.
- M.S.: Biometry, Experimental Design, Wetlands Ecology, Herpetology, and Multivariate Analysis of Ecological Data.
- B.S.: Elementary Statistics, Aquatic Ecology, Entomology, Comparative Vertebrate Morphology, Plant Physiology

Self-Enrichment Courses

Udemy <i>Machine Learning A-Z™: Hands-On Python and R in Data Science</i>	2019
Coursera and University of Florida <i>Sustainable Agricultural Land Management</i>	2016
Coursera and University of Wisconsin-Madison <i>The Land Ethic Reclaimed: Perceptive Hunting, Aldo Leopold, and Conservation</i>	2015
Coursera and John Hopkins University <i>R Programming</i>	2014
Coursera and John Hopkins University <i>University Teaching 101</i>	2014
Alabama Department of Conservation Natural Resources State Lands Division <i>Bird Bootcamp</i>	2013

Skills

- Sampling and surveys: Backpack electrofishing, seine netting, gillnetting, trapping (aquatic), visual encounter surveys, coverboard traps, call surveys, passive integrated transponder tagging and equipment, camera trap arrays, standardized stream habitat survey, soil, air, and water sampling (stationary and hand-held), environmental DNA sampling, non-lethal tissue sampling, point count songbird survey, bird banding, internal organ biopsy, prescribed burning, establishment of wildlife supplementary fields, construction of forest roads, boundary survey, and timber cruise and stand measurements.
- Equipment: Four-wheel drive vehicle (with trailer), all-terrain vehicle (with spraying and planting implements), utility side by side, utility tractor (with spraying, mowing, and planting equipment), backhoe tractor, bulldozer, grader, vessel with outboard, canoe, kayak, replace flat tire, and replace wheel bearings.
- Analysis: Experimental and sampling design, classic univariate (e.g., general[ized] linear and time series analyses) and multivariate (e.g., [un]constrained ordination, cluster analyses, and geometric morphomet-

rics), spatial analysis, machine learning (e.g., association rules, classification and regression trees, ensemble models, text mining), population projection (e.g., Leslie matrix and vec-permutation matrix) and population modeling (e.g., N-mixture models), and decision analysis and optimization (e.g., linear programming, analytic hierarchy process, decision trees, Bayesian decision networks, and stochastic dynamic programming).

- Programming: Competent to expert in R, Git, SQL, \LaTeX , markdown / RMarkdown, and HTML. Novice to intermediate in Python, VBA, CSS, and JavaScript.
- Applications: Microsoft Office Suite, G Suite, Mendeley Desktop, Zotero, RStudio, Vizual Studio Code, Shiny, Atom, GitHub Desktop, ArcGIS, GIS in R, Quantum GIS, GRASS, Insight Maker, STELLA, HOBOWare PRO, Blackboard, Canvas, Camtasia, Mural, WebEx, Zoom, Teams, and AUTHOREA.
- Laboratory: Flow injection analysis (nutrient concentrations in water samples), water chemistry testing, suspended sediment measurement, polymerase chain reaction, and otolith aging.

References

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U.S. Fish and Wildlife Service

Large Rivers Coordination Office

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Endnotes

^a Arkansas Game and Fish Commission (AGFC), Iowa State University (ISU), Kentucky Department of Fish and Wildlife Resources (KDFWR), Louisiana Department of Wildlife and Fisheries (LDWF), Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP), Missouri Department of Conservation (MDC), Tennessee Wildlife Resource Agency (TWRA), Texas Parks and Wildlife Department (TPWD), Louisiana State University (LSU), Murray State University (Murray State), Oklahoma Department of Wildlife Conservation (ODWC), South Dakota Game, Fish, and Parks (SDGFP), Tennessee Technological University (TTU), University of Arkansas at Pine Bluff (UAPB), University of Southern Mississippi (USM), U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC), U.S. Geological Survey (USGS), Alabama Cooperative Research Unit, Auburn University (ALCRU / AU), USGS Columbia Environmental Research Center (CERC), USGS Mississippi Cooperative Research Unit, Mississippi State University (MSCRU / MSU), USGS Missouri Cooperative Research Unit, University of Missouri (MOCRU / UM), USGS Upper Midwest Environmental Sciences Center (UMESC), U.S. Fish and Wildlife Service, Baton Rouge Fish and Wildlife Conservation Office (BRFWCO), USFWS Oklahoma FWCO (OKFWCO), and USFWS Carterville FWCO (CFWCO)

^b AGFC, KDFWR, LDWF, MDWFP, MDC, TWRA, TPWD, ODWC, Kansas Department of Wildlife and Parks (KDWP), ERDC, CERC, UMESC, BRFWCO, and OKFWCO

^c KDWP, TWRA, TPWD, Iowa Department of Natural Resources (IDNR), ADCNR, KDFWR, MDC, USFWS Midwest Regional Office, USFWS Large Rivers Coordination Office, Columbia FWCO, USACE, USGS