Adam J. McFall

NSF Graduate Research Fellow
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Education

University of Georgia Aug 2020 – Aug 2023
Master of Science in Integrative Conservation & Sustainability GPA: 3.71
University of South Carolina, Aiken Aug 2015 – May 2019
Bachelor of Science in Biology GPA: 3.858

Grants

Graduate Research Fellowship Program, National Science Foundation Sep 2020 – Aug 2023
"Carryover Effects of Larval Stressors on Juvenile Gopher Frogs" - PI
$34,000 annual living stipend, $12,000 annual research stipend
Satch Krantz Conservation Fund, Riverbanks Zoo & Garden Jan 2023
"A Soft Release Plan for Head-Started Gopher Frogs (*Lithobates capito*)" - PI
$8,561

Relevant Experience

Biologist Sep 2023 – Present
U.S. Geological Survey, Columbia Environmental Research Center *40 hours per week*
4200 New Haven Road, Columbia, Missouri 65201
Supervisor: Curt Byrd, cbyrd@usgs.gov

Conspecific Feeding Sounds as an Attractant for Invasive Carp

- Tested the potential for the sound of carp feeding to elicit a positive response to inform harvest strategies
- Setup experimental ponds for acoustic telemetry study; sedated and implanted 59 fish with PIT and acoustic tags
- Conducted nightly sound exposure trials
- Operated HTI telemetry system and hydrophones
- Compiled and analyzed millions of fish detections using ArcGIS Pro and R software
- Performed surgeries and sutures to implant acoustic tags in grass carp
- Meticulously performed QA/QC of detection data to ensure quality product

Blue Sucker Tributary Use in Colorado River Using PIT Tag Array

- Restored five Biomark IS1001 master controllers to full functionality and built new PVC housings for 10 antennas resulting in timely delivery of equipment for graduate student thesis project studying blue sucker habitat use in Texas
- Presented progress updates and troubleshooting guide for collaborators from state, university, and private agencies leading to accurate budget estimates and supply list for collaborators

Movement of Invasive Grass Carp in the Sandusky River

- Deployed acoustic receivers at Sandusky River, Maumee River, and Lake Erie, OH to track grass carp movement
- Analyzed movement data with Fathom Position software to show how grass carp use areas in the Sandusky River
- Co-managed a project within the Great Lakes Acoustic Telemetry Observation System (GLATOS) database

Testing Sound as a Deterrent for Invasive Carp

- Write a manuscript about using sound to exclude invasive carp species from areas to prevent their spread in the U.S.
- Assist a graduate student on their thesis project—testing how sound exposure influences movement and behavior of juvenile grass carp in a laboratory setting

Ecology of Silver Carp

- Deployed acoustic telemetry receivers at embayments along Kentucky Lake and Lake Barkley at Land Between the Lakes National Recreation Area in Kentucky to track silver carp movement
- Calibrated and maintained remote multiparameter sonds and real-time sonds for water quality analysis
- Recorded global positioning system (GPS) data with a handheld unit for accurate deployment of receivers and sonds
- Backed up boat trailers and tied knots to secure acoustic receivers to concrete anchors prior to deployment

Graduate Research Assistant Aug 2020 – Aug 2023
University of Georgia, Odum School of Ecology, Savannah River Ecology Laboratory *40+ hours per week*
SRS Building 737A, Aiken, South Carolina 29808
Supervisor: Stacey Lance, lance@srel.uga.edu

Implications of soft releasing for conservation of headstarted gopher frogs

- Designed a study to assess the effects of "soft releasing" on the movement, survival, and growth of gopher frog
- Constructed 18 3m x 3m pens—operate mechanical trencher
- Administered analgesic sedatives for gopher frogs
- Performed surgical incisions in gopher frogs and implanted them with microchips to track location in the wild
- Conducted radiotelemetry surveys on gopher frogs—fastened frogs with radiotransmitter belts

Novel abnormalities in gopher frogs

- Characterized novel malformations in gopher frogs
- Performed health screenings, photographs and radiographs, necropsies under microscope
- Developed a standardized protocol to keep wild gopher frogs in captivity for conservation purposes
- Became skilled at compiling, categorizing, and synthesizing scientific literature
- Assisted in writing animal use protocols approved by the UGA institutional animal care and use committee
- Wrote scientific article summarizing findings and submitted to peer-reviewed journal

Utilizing carryover effects as a conservation tool in gopher frogs

- Designed mesocosm and field experiments to evaluate effects of predator cues on gopher frogs across life stages
- Assisted in husbandry of 250 larvae in mesocosms, involved long days in hot weather
- Modified a protocol for waterborne corticosterone extraction for gopher frogs
- Conducted water quality testing in mesocosms and in field setting with YSI – temperature, pH, dissolved oxygen

Life Science Technician May 2019 – Aug 2020
University of Georgia, Savannah River Ecology Laboratory *40 hours per week*
SRS Building 737A, Aiken, South Carolina 29808
Supervisor: Stacey Lance, lance@srel.uga.edu

Density estimates of coyotes using genetic mark-recapture

- Drove thousands of miles of transects conducting visual encounter surveys for coyote (*Canis latrans*) scat on federal and private lands, 12 hrs driving each day
- Extracted and quantified DNA from scat using Qubit and NanoDrop analyzers
- Became proficient with Avenza Maps, DNA extraction, PCR/qPCR, electrophoresis, JMP data analysis software

Environmental DNA (eDNA) to assess presence/absence and abundance of frogs

- Attempted laboratory experiments aimed at estimating abundance of anurans in water using eDNA with Southern toad (*Anaxyrus terrestris*) and Southern leopard frog (*Lithobates sphenocephalus*) tadpoles
- Traveled across the Savannah River Site and multiple private lands in South Carolina to collect eDNA, conduct dipnet and visual surveys for gopher frogs
- Experience building partnerships with private land owners, plus NGO, state, and federally employed biologists
- Became adept at sampling, extracting, and quantifying eDNA

Waterborne corticosterone assays and hormone extractions from treefrogs

- Extracted hormones from Cuban treefrogs (*Osteopilus septentrionalis*) using a waterborne extraction method
- Modified a protocol for waterborne corticosterone extraction for Cuban treefrogs
- Became proficient at solid phase extractions and ELISAs, Gen5 spectrophotometry software

Visiting Student Researcher Sep 2018 – May 2019
University of South Carolina Aiken, Savannah River Ecology Laboratory *Approx. 15 hours per week*
SRS Building 737A, Aiken, South Carolina 29808
Co-advisors: Stacey Lance, lance@srel.uga.edu & Kristina Ramstad, kristinar@usca.edu

Undergraduate Senior capstone project

- Conducted my senior thesis at the Savannah River Ecology Laboratory
- Designed and conducted feeding and hopping trials to analyze behavioral effects of the herbicide triclopyr.
- Collected water samples from juvenile Cuban treefrogs (*Osteopilus septentrionalis*) to be used in hormone analysis
- Responsible for feeding, cleaning, and handling hundreds of Cuban treefrogs from larval to juvenile stages
- Assisted captive breeding effort by injecting adult Cuban treefrogs with reproductive hormones

Animal Care Worker Dec 2015 – May 2019
University of South Carolina Aiken, Ruth Patrick Science Education Center *Approx. 15 hours per week*
427 Scholar Loop, Aiken, South Carolina 29801
Director: Gary Senn, SennG@usca.edu

- Responsible for reptile, amphibian, and bird husbandry, training, medicating, and cleaning

- Became skilled at handling screech (*Megascops asio*) and barred owls (*Strix vario*)
- Led outreach events for K-12 students and public involving handling and demonstrations of live animals
- Cashier for planetarium science store
- Organized activities for birthday events

Herpetology & Ornithology Intern Jun 2018 – Aug 2018
Zoo Knoxville *16 hours per week*
3500 Knoxville Zoo Drive, Knoxville, TN 37914
Curator of Herpetology: Michael Ogle, mogle@zooknoxville.org

- Responsible for reptile, amphibian, and bird husbandry feeding, training, medicating, and cleaning
- Developed a research project to enhance welfare of captive Komodo Dragons (*Varanus komodoensis*)
- Assisted in breeding programs for multiple critically endangered species including Louisiana pine snake (*Pituophis ruthveni*), bog turtle (*Glyptemys muhlenbergii)*, spider tortoise (*Pyxis arachnoides*), Madagascar flat-tailed tortoise (*Pyxis planicauda*), Roti Island snake-necked turtle (*Chelodina mccordi*),
- Gained experience collecting, incubating, and candling spider tortoise eggs
- Learned how to probe juvenile snakes to identify sex

Pet Care Associate Jun 2018 – Aug 2018
PetSmart *Approx. 20-30 hours per week*
214 Morrell Road, Knoxville, TN 37919
Store Manager: Christina Ryskamp

- Responsible for feeding, handling, cleaning, rehabilitating reptiles, amphibians, birds, fish, and small mammals
- Store cashier and product stocking
- Became experienced with water quality tests and customer service
- Made animal care and husbandry recommendations to hundreds of pet owners

Scholarships & Awards

Star Award. US Department of the Interior & US Geological Survey. Columbia Environmental Research Center	2024
Best Oral Presentation Award, Rapid-Fire Session (1st place). SREL Graduate Student Symposium	2022
SSAR Student Travel Award ($500). Society for the Study of Amphibians and Reptiles	2022
Best Undergraduate Platform Presentation (2nd place). SETAC North America	2019
Student Travel Award ($400). SETAC North America	2019
Best Poster Presentation Award, Biology & Environmental Sciences Group F (2nd place). Discover USC	2019
SC LIFE Scholarship. University of South Carolina Aiken	2015–2019
USCA Partnership Scholarship. University of South Carolina Aiken	2015–2019
USCA Bookstore Scholarship ($315). University of South Carolina Aiken	2018
USCA Pep Band Scholarship. University of South Carolina Aiken	2015–2017
Aiken Rotary Club Scholarship ($2000). Aiken Rotary Club	2015

Publications

Lawson K, Faulkner J, McFall A, Shier S, Vishy C, Slaugh C, Vetter B, Mensinger A, Albers J, Calfee R. The use of a broadband acoustic stimulus to deter bigheaded carps motivated by a food attractant. *In prep*.

McFall AJ, Nelson KN, Grosse AM, Henne J, Robinson PS, Lance SL. Soft releasing affects growth and movement of Gopher Frogs (*Rana capito*). *In prep*.

Stonecypher ET, Robinson PS, Nelson KN, McFall AJ. 2024. *Ambystoma opacum* (Marbled Salamander). Leucism. **Herpetological Review**. 55(1):60–61.

Vincent LM, Allender MC, Curtis AE, Garrison JC, Lance S, McFall A, Simmons A, Moorhead K, Adamovicz L. 2024. Health assessment of spotted (*Clemmys guttata*) and painted (*Chrysemys picta*) turtles in Cape Cod, Massachusetts, U.S.A, with detection of a novel adenovirus. **Journal of Zoo and Wildlife Medicine** 55 (3): 743–749.

Nelson KN, McFall AJ, Stonecypher ET, Swartzbaugh CS, Allender MC, Lance SL. 2024. Development and validation of a scoring system for abnormalities in the Gopher Frog (*Rana capito*). **Herpetological Conservation and Biology**. 19(1):117–128.

Vincent LM, Allender MC, Curtis AE, Madden NE, Cray C, Lance S, McFall A, Adamovicz L. 2023. Cutaneous myiasis and its relationship to wellness in Eastern Box Turtles (*Terrapene carolina carolina*) in Cape Cod, Massachusetts. **Journal of Zoo and Wildlife Medicine** 54(4):785–795

McFall AJ, Nelson KN, Stonecypher ET, Swartzbaugh CS, Allender MC, Burrell CE, Yabsley MJ, Lance SL. 2023. Morphological abnormalities in the Gopher Frog (*Lithobates capito*) during a head-starting event. **Herpetological**

Conservation and Biology 18(3):436–449
McFall AJ, Ziemba J, Weir SM, Capps KA, Lance SL. 2023. Amphibian dispersal traits not impacted by triclopyr exposure during the juvenile stage. **Diversity** 15(2):215 special issue on "Amphibian ecology in geographically isolated wetlands"

Presentations

McFall AJ, Faulkner JD, Mueller AT, Byrd CG, Calfee RD. **Evaluating Conspecific Feeding Sounds as an Attractant for Grass Carp**. Midwest Fish and Wildlife Conference. St. Louis, MO, USA 21 January 2025. Poster.
McFall AJ. **Evaluating soft releasing as a component of headstarting programs for the gopher frog**. Columbia Environmental Research Center Seminar Series. Columbia, MO, USA 7 February 2024. Oral.
McFall AJ. **How abnormalities and soft releasing affect head-started gopher frogs and what it means for conservation**. Master's Thesis Defense. Aiken, SC, USA 28 June 2023. Oral.
McFall AJ, Nelson KN, Stonecypher ET, and Lance SL. **Soft releasing affects movement and behavior of head-started gopher frogs (*Rana capito*)**. 2023 Southeast Partners in Amphibian and Reptile Conservation (SEPARC) Meeting. Black Mountain, NC, USA 24 February 2023. Oral.
McFall AJ, Nelson KN, Stonecypher ET, and Lance SL. **Soft releasing affects movement and behavior of head-started gopher frogs (*Rana capito*)**. Savannah River Ecology Laboratory Graduate Student Symposium. Aiken, SC, USA 21 October 2022. Oral.
McFall AJ, Nelson KN, Stonecypher ET, Swartzbaugh CS, Latham HN, and Lance SL. **Abnormalities in the at-risk gopher frog (*Lithobates capito*): what we know and where we're going**. Joint Meeting of Ichthyologists and Herpetologists. Spokane, WA, USA 29 July 2022. Oral.
McFall AJ, Nelson KN, Stonecypher ET, Swartzbaugh CS, and Lance SL. **Developmental abnormalities complicate conservation of the Carolina gopher frog (*Rana capito*)**. Odum School of Ecology Graduate Student Symposium. Athens, GA, USA 12 February 2022. Oral.
McFall AJ. **Assessing status and available habitat of the Mabee's salamander (*Ambystoma mabeei*) in South Carolina**. GIS Applications for Natural Resources Final Presentations. Athens, GA, USA 6 May 2021. Poster.
McFall AJ, Ziemba JL, Rodriguez G, and Lance SL. **Effects of the herbicide triclopyr on the behavior and physiology of Cuban tree frogs**. SETAC North America 40th Annual Meeting. Toronto, Ontario, CA 4 November 2019. Oral.
McFall AJ, Ziemba JL, Rodriguez G, and Lance SL. **Effects of the herbicide triclopyr on the behavior and physiology of Cuban tree frogs**. SREL Graduate Student Symposium. Windsor, South Carolina, 19 July 2019. Poster.
McFall AJ, Ziemba JL, Rodriguez G, and Lance SL. **Effects of the herbicide triclopyr on the behavior and physiology of Cuban tree frogs**. University of South Carolina's Discover USC. Columbia, South Carolina, 26 April 2019. Poster.
McFall AJ, Ziemba JL, Rodriguez G, and Lance SL. **Effects of the herbicide triclopyr on the behavior and physiology of Cuban tree frogs**. Scholar Showcase. Aiken, South Carolina, 12 April 2019. Oral.
McFall AJ and Lemyre C. **Responsiveness of Komodo Dragons (*Varanus komodoensis*) to food, sensory, and social enrichment**. Zoo Knoxville. Knoxville, Tennessee, 9 August 2018. Oral.

Invited Talks

McFall AJ, Nelson KN, Stonecypher ET, Swartzbaugh CS, and Lance SL. **Obstacles and unexpected outcomes in Gopher Frog conservation research**. NC Congress of Herpetology. Asheboro, NC, USA 6 May 2023. Guest talk.
McFall AJ and Nelson KN. **Gopher Frog conservation research: a story of unexpected challenges and paths forward**. Odum School of Ecology. Athens, GA, USA 5 October 2022. Guest lecture.

Special Projects

A Soft Release Plan for Head-Started Gopher Frogs (*Rana capito*) 2023

- Leading a gopher frog reintroduction project in South Carolina
- Wrote AUP for project permitting
- Purchase project materials, manage funding account, and bookkeeping
- Organize meetings with stakeholders to discuss goals, timeline, and key deliverables
- Coordinate site visits with property manager, South Carolina state herpetologist, USFWS, and Riverbanks Zoo personnel
- Scheduled pen construction involving stakeholders and volunteers and delegated responsibilities for members
- Operated mechanical trencher to outline pen boundary
- Installed 18 3m x 3m hardware cloth pens

Par Pond East (PPE) Land Management Plan 2022
Savannah River Ecology Laboratory

- Assisted in developing habitat management recommendations for the Savannah River Site's PPE region in South Carolina that will be incorporated in a 10-year management plan by the US Forest Service (USFS)
- Highlighted habitat needs by individual stand and wetland in PPE for federal at-risk species and species listed by

South Carolina Department of Natural Resources as high priority under the State Wildlife Action Plan (SWAP)
- Conducted site visits to evaluate current conditions of stands/wetlands and developed solutions to restore degraded stands/wetlands to suitable habitat for SWAP species
- Prioritized stands/wetlands into several categories to provide realistic management recommendations for USFS

Social, Economic, and Environmental Impacts of a Proposed Rock Quarry 2021
University of Georgia
- Assisted Stack and Associates, P.C. in preparing evidence against a rock quarry establishment proposal by Mayfield, LLC in Hancock County, GA at the County Board of Commissioners Meeting
- Prepared a document that highlighted the potential negative impacts of the proposed quarry on wildlife, community members, and historic sites
- County Board of Commissioners voted to deny the quarry permit to Mayfield, LLC by a 4-0 vote

Relevant Coursework

Problems in Ecology Aug 2022 – Dec 2022
University of Georgia
- Developed an original research project with the goal of soft releasing metamorphic gopher frogs at historic population in South Carolina
- Identified potential funding agencies for the project using web/database searches and personal communications
- Wrote a grant proposal outlining the soft release project
- Created budgets for research projects
- Gained experience with grant submission services at UGA including portal navigation and correspondence with grant specialists
- Submitted proposal to the Riverbanks Zoo & Garden's Satch Krantz Conservation Fund

GIS Applications for Natural Resources Jan 2021 – May 2021
University of Georgia
- Developed a project to identify remaining suitable habitat in South Carolina for the Mabee's salamander (*Ambystoma mabeei*) and presented a poster as a final project, included management recommendations based on the proportion of suitable habitat versus available habitat
- Became proficient at utilizing publicly available datasets for conservation purposes, including USGS land cover and hydrography, and USFWS National Wetlands Inventory, DOT public roads, and DNR Heritage Trust Program species records among others
- Gained experience with habitat analyses for recreational/at-risk species, creating maps, raster/vector data, coordinate systems, statistics tables in ArcMap/ArcGIS

Environmental Law Practicum Jan 2021 – May 2021
University of Georgia
- Partnered with Southern Environmental Law Center (SELC), tasked with identifying a vulnerable species in the Southeast US and developing a report outlining threats and conservation measures for it
- Contributed a detailed report that will be utilized for environmental justice cases by SELC in Virginia, North Carolina, and South Carolina for Mabee's salamander conservation, plus protection of isolated ephemeral wetlands not protected by the Clean Water Act and upland longleaf pine savanna management
- Assisted Stack and Associates, P.C. in preparing evidence against a rock quarry establishment proposal by Mayfield, LLC in Hancock County, GA at the County Board of Commissioners Meeting
- Prepared a document that highlighted the potential impacts of the proposed quarry on wildlife, environmental justice concerns, and historic sites
- County Board of Commissioners voted to deny the quarry permit to Mayfield, LLC by a 4-0 vote
- Synthesized available information on wildlife impacts of per-and polyfluoroalkyl substances (PFAS) in 3 watersheds across GA/TN/AL for SELC
- Identified region-specific point-sources for PFAS along these watersheds and specific threats to species of concern

Herpetology Jan 2021 – May 2021
University of Georgia
- Became proficient at identifying all reptiles and amphibians native to Georgia
- Conducted frog call surveys across Whitehall Forest in Athens, GA for the USGS North American Amphibian Monitoring Program (NAAMP), used Kestrel Wind Meter 3000
- Responsible for monitoring a pond in Whitehall Forest for herp species from January-May using a variety of methods including minnow traps, turtle traps, PVC treefrog pipes, leaf litter bags, dipnet sweep surveys,

eyeshine spotlighting, and call surveys
- Created a short video describing environmental DNA (eDNA) for conservation efforts of the gopher frog
- Developed class materials for an amphibian identification lab and led/taught other students

Experimental Methods in Forestry and Natural Resources Aug 2021 – Dec 2021
University of Georgia
- Developed a project to identify remaining available habitat in South Carolina for the Mabee's salamander (*Ambystoma mabeei*) and presented my findings and land management recommendations for their conservation
- Became proficient at utilizing publicly available datasets for conservation purposes, including USGS land cover and hydrography, and USFWS National Wetlands Inventory, DOT public roads, and DNR Heritage Trust Program species records
- Gained experience with habitat analyses for recreational and at-risk species, creating maps, raster/vector data, coordinate systems, statistics tables

Ichthyology Jan 2018 – May 2018
University of South Carolina, Aiken
- Learned principles in conducting scientific research in fishery
- Gained experience identifying fishes native to South Carolina
- Used backpack electrofisher to sample multiple stream communities to assess fish diversity

Relevant Skills, Information, and Certifications

- **Certifications:** American Safety & Health Institute Adult, Child, and Infant First Aid, CPR, AED
- **Skills:** Experiment/project design and coordination; grant writing; data analysis; writing AUPs; writing lab and field SOPs; fish surgery and suturing; animal husbandry, restraint, and training; surgical procedures on amphibians; hormone and DNA extractions; ELISAs; PCR/qPCR; electrophoresis; blood digestions; NMR/IR spectroscopy
- **Instrumentation/Equipment:** Vemco VR2AR and VR2Tx acoustic receivers, HTI model 290 ATR and hydrophones, Vemco EXO2 multiparameter and In-Situ Aqua TROLL sonds, handheld YSI, ATS R410 radiotelemetry receiver, IS1001 Multiplexing Transceiver System and HPR Lite/Plus handheld PIT tag readers, Depstech endoscope, Kestrel 3000 Weather Meter, dissecting microscope, backpack electrofisher, Wildlife Acoustics recorders, Masterflex portable eDNA pump, Vermeer RTX200 pedestrian trencher
- **Software:** Microsoft Office, R Studio, Quarto, JMP, QGIS/ArcGIS Pro, Google Earth, Avenza Maps, ArcGIS Field Maps, Garmin BaseCamp, Audacity, RavenPro, Fathom Position, BioTerm, AcousticTag, MarkTags, TagProg, LabChart, ImageJ, Gen5
- **Computer Languages:** R, Markdown, Pandoc, LaTex, CSS
- **Former Member**: The Wildlife Society Jul 2019 – Jul 2022, Nov 2023 – Nov 2024
- **Former Member**: North Carolina Herpetological Society May 2023 – Dec 2023
- **Former Member**: Society for the Study of Amphibians and Reptiles Jan 2022 – Dec 2023
- **Former Member**: American Society of Ichthyologists and Herpetologists Jan 2022 – Dec 2022
- **Former Member**: Society of Environmental Toxicology and Chemistry May 2019 – May 2022

Leadership and Service Activities

Undergraduate Mentor 2025
Midwest Fish and Wildlife Conference, MO
Mentored a senior college student at the Midwest Fish and Wildlife Conference. The student was seeking out graduate school opportunities and interested in fisheries science.

SREL Diversity Committee 2022-2023
Savannah River Ecology Laboratory, SC
Responsible for planning initiatives to target improving diversity equity and inclusion within the SREL-community including special events and discussion groups.

Children's Ministry Volunteer 2022-2023
Cola Church, SC
Volunteered twice per month to teach 1st-5th grade children Bible lessons during 1-hour worship services.

GSS Executive Committee 2022
SREL Graduate Student Symposium, SC
Responsible for planning a symposium for graduate students, post-doctoral researchers, and technicians to present their research to the Savannah River Site community. Duties also included coordinating meetings, checking in on sub-committees, communicating event to SREL, and acting as liaison for an invited keynote speaker.

Founder's Fellow Mentor 2022

Joint Meeting of Ichthyologists, WA *One week event*
Mentored a high school student at the Joint Meeting of Ichthyologists and Herpetologists. The student was the recipient of an award from the Society for the Study of Amphibians and Reptiles given to those who completed a Pre-College Scholars Program.

Reading Tutor 2022
UnitedWay Midland's Reading Consortium, SC
Virtually tutored a kindergarten student struggling to read at grade-level for 45 minutes once per week. This program worked with majority-minority communities in the South Carolina midlands. I was able to engage my student in animal/habitat conservation through the books we read together and hopefully leave an imprint on them to consider a career in ecology.

Volunteer 2020–2021
EcoReach Backyard Critters, GA
Volunteered for the platform/logistics team for EcoReach's Backyard Critters program. This was an initiative to reach K-12 students to spark a fascination for wildlife. Students submitted photos of animals or plants they found with questions to the Backyard Critters Submission Page. I was responsible for helping develop this page for students and teachers to post their findings and answer questions.

Volunteer Research Assistant 2020
Georgia Adopt-A-Stream Program, SC *One day event*
Collected baseline water quality data and invertebrate diversity counts along transects of Hollow Creek (tributary of the Savannah River) in the Silver Bluff Audubon Center and Sanctuary in partnership with the Augusta-Aiken Audubon Society.

Volunteer Educator 2019
Savannah River Ecology Lab's Touch an Animal Day, SC *One day event*
Volunteered for Savannah River Ecology Lab's (SREL) Touch an Animal Day (TAAD), providing information to visitors on amphibian behavior, ecology, and threats to habitat for each species.

Judge's Assistant 2018, 2019
Future City Competition, SC *One day event*
Collaborated with USCA and Savannah River Site (SRS) faculty who judged middle school student projects. I was responsible for timing and giving the introductory remarks for each school to the judges before students presented 3-dimensional city models centered around energy efficiency and environmental preservation.

Student Liaison 2016–2018
Pacer Pulse Basketball Band at USCA, SC
Responsible for proposing and securing budget funds to the USCA Student Government Association (SGA), cheer design, vocal initiation, encouraging positive performance, and attending required leadership meetings.

Volunteer Musician 2015–2018
Aiken Youth Orchestra and Aiken Civic Orchestra, SC
Volunteered to play as a fill-in principal horn musician for seasonal concerts in both Aiken youth and Aiken civic orchestras.

References

Dr. Stacey Lance
Senior Research Scientist
University of Georgia
Savannah River Ecology Laboratory
P.O. Drawer E
Aiken, SC 29802
803-645-4620
lance@srel.uga.edu

Mr. Curt Byrd
Fish Biologist
U.S. Geological Survey
Columbia Environmental Research Center
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Columbia, MO 65201
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Mr. Jake Faulkner
Fish Biologist
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Columbia, MO 65201
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Mr. Andrew Grosse
State Herpetologist
South Carolina Department of Natural Resources
Washo Reserve
220 Santee Gun Club Rd.
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