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Dr. Michael Colvin  
Assistant Professor   
Mississippi State University   
Thompson Hall  
Department of Wildlife, Fisheries, and Aquaculture  
Box 9690  
Mississippi State, MS 39762

Dear Professor Colvin,

I am interested in pursuing a Ph.D. in Forest Resources with a concentration in Wildlife, Fisheries, and Aquaculture at Mississippi State University. I understand that you are currently seeking a student to assist with developing a framework to prioritize conservation of aquatic species. With my educational background and love for stream ecology, I believe I could be a valuable asset to your team. My long-term career goal is to pursue a tenure track faculty position that includes research in stream ecology and the opportunity to teach graduate and undergraduate students.

In May 2015, I graduated with my Master of Science in Environmental Science from the University of Tennessee at Chattanooga with a 3.57 GPA. During my time at UTC, I completed several courses and laboratories that pertain to my area of interest, in addition to serving as a teaching assistant in two. I completed Ichthyology in Spring 2013 and was a TA for the laboratory the following Spring (2014). In Ichthyology, I gained experience electrofishing with backpack shockers and from a boat, utilizing block nets, as well as seining in a variety of habitats. Additionally, I did morphological and physiological studies of freshwater fishes in the Tennessee Valley area and some marine fishes. Ichthyology labs also enabled me to assist the Tennessee Aquarium’s Senior Aquarist, Rob Mottice, with the processing and intake of fishes from the Tennessee River into quarantine prior to display. During Fall 2013, I was a student in Limnology and Reservoir Ecology while I was a TA for the laboratory. This course enabled me to experience working with sampling and identifying benthic macroinvertebrates utilizing D-frame kick nets and Hess samplers in streams, as well as experience sampling and identifying fishes in the Tennessee River. Additional coursework at UTC included Biodiversity and Natural Resource Conservation, Hydrology, Advanced Ecology, and Applied Statistics for Environmental Scientists. Prior to pursuing my Master’s degree, I graduated Magna Cum Laude with a Bachelor of Science in Biology at Dalton State College in December 2011, with a 3.9 GPA.

For my Master of Science degree, I completed an internship with a local nonprofit organization, Limestone Valley Resource Conservation and Development Council, aimed at improving local waterways. I generated GIS maps of various landscape features, assisted in organizing and implementing community outreach programs, and conducted monthly physicochemical parameter water quality sampling. Data collected were utilized in a watershed management plan for the Lookout Creek watershed (Dade County, Georgia) by Limestone Valley RC&D and also in research for my final internship report for my M.S. program. My research involved sampling benthic macroinvertebrates with D-frame kick nets and performing both qualitative and quantitative instream habitat assessments in major tributaries of the Lookout Creek watershed. Upon completion of sampling, I examined potential relationships between the benthic macroinvertebrate assemblages, instream habitats, and landscape features and gave an oral presentation of my research at the annual conference of the Association of Southeastern Biologists and poster presentations at the annual meeting of the Tennessee Chapter of the American Fisheries Society and UTC’s Research Day. My research was “Relationships Between Benthic Macroinvertebrate Assemblages, Stream Habitat, and Catchment Landscape Features in the Lookout Creek System (Tennessee River Drainage)”.

In August 2015, I gained employment at Dalton State College as a Lecturer of Biology. I have had the opportunity to teach Principles of Biology 1, Environmental Studies, and Life and Earth Science. For the Life and Earth Science course, I have modified the worksheet-based labs to be more hands-on and practical by conducting outdoor labs in which students perform stream macroinvertebrate surveys that teaches them about how to use bioindicators to assess stream health. I have also modified indoor labs that teach students to utilize dichotomous keys to identify freshwater fishes. I have served as a guest presenter for Dalton State’s Senior Seminar and Field Biology Techniques classes as well. In addition to teaching, I took on an undergraduate research student and advised her in macroinvertebrate sampling techniques and physicochemical water quality sampling. Her research investigated relationships between land use and water quality using macroinvertebrates as bioindicators by comparing an undisturbed upstream site and a downstream site in the Holly Creek watershed (Chatsworth, Georgia). She presented her research in a poster session at Dalton State’s annual Student Scholarship Showcase. Fall 2016, I supervised an undergraduate student teaching assistant for my Principles of Biology 1 course. He was responsible for assisting with laboratory duties, answering student questions, and introducing two labs throughout the semester. Aside from college students, I have also assisted with teaching and conducting lab sessions with elementary and middle school students in two summer camp programs, World of Science and Stream Stomp, hosted by Dalton State College.

Attached is my curriculum vitae, contract information for 3 references, and unofficial transcripts and GRE scores. Official transcripts and GRE scores are available upon request. I feel that my research and teaching experience combined with my strong work ethic and motivation make me an ideal candidate for this position. I appreciate your time and consideration and look forward to meeting you and discussing my future at Mississippi State University.

Sincerely,

Amelia Atwell