MS Graduate Research Assistantship
Department of Watershed Sciences and the Ecology Center
Utah State University

Spawning migration phenology and early life history habitat use of a threatened adfluvial sucker species

The Quantitative Fisheries and Aquatic Ecology Lab at Utah State University is recruiting a talented MS student to begin in Fall semester 2024. Our research focuses broadly on how aquatic ecosystems respond to environmental changes and management efforts. This study will examine individual variation in spawning phenology and the early life history habitat use of a federally threatened adfluvial sucker species. Variation in spawning phenology presents different fitness prospects to individuals spawning at different times, and thus can be subject to selection over time. Therefore, characterizing the drivers of individual variation and whether this variation is maintained across time is important to understanding the impacts of changing environmental conditions on migratory fishes. Additionally, many native fishes of the southwestern US experience recruitment bottlenecks due to historic habitat degradation and establishment of non-native piscivores. Habitat restoration efforts seek to alleviate these recruitment bottlenecks by restoring refuge habitats, yet how native fishes use restored habitats is still largely unknown. This project will combine field sampling on a large Intermountain West lake and river delta, laboratory sample processing, and statistical modeling. The results will improve our understanding of the drivers of spawning phenology and how native fishes respond to large-scale habitat restoration projects.

Qualifications: B.S. in biology, ecology, fisheries or a related field and a minimum 3.2 GPA. A good work ethic and strong writing, organizational and data management skills are required, as well as the ability to maintain positive working relationships with members of the lab, department, and stakeholder groups. A willingness to work in the field, often in boats, in challenging conditions (heat, cold, wind, rain, snow) is required.

Location: The successful applicant will be based out of the Department of Watershed Sciences at Utah State University in Logan, UT. Logan is a small college town located at the base of the Bear River Range and the Cache National Forest, offering a diversity of outdoor recreation opportunities, as well as being within a short drive of Salt Lake City and its many amenities.

Stipend: $2,083 per month stipend, plus tuition, fees and health insurance (total award ~$36,000/year).

Closing date: Until filled. Potential applicants should submit materials as soon as possible to be considered.

Starting date: July 15, 2024 (mid-August at the latest)

Contact: Please e-mail a letter of interest, your CV, a professional or academic writing sample, and the names and contact information for three professional references to Tim Walsworth, e-mail: timothy.walsworth@usu.edu, Department of Watershed Sciences, Utah State University, 5210 Old Main Hill, Logan, UT 84322