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

Prioritizing alternative management approaches for invasive species control to promote threatened species recovery

The Walsworth Lab at Utah State University is recruiting a talented PhD student to begin in Fall 2020. Our research focuses broadly on how fish populations and aquatic ecosystems respond to environmental and management changes. The current study will examine the feasibility of and trade-offs among alternative management options for maintaining low invader biomass and the resultant improved conditions for imperiled native species recovery. Invasive species represent significant threats to the conservation and recovery of native fishes globally and are thus frequently the targets of extensive control efforts. However, even when control efforts are successful at substantially reducing biomass of established invasive species, compensatory recruitment and gear selectivity can present major challenges to maintaining initial successes. Understanding the trade-offs among alternative management options is critical to managers faced with making decisions in the presence of great uncertainty. This project will combine field sampling on a large Intermountain West lake, analysis of contemporary and historic data, and modeling of fishery and ecosystem dynamics. The results will improve our understanding invasive species ecology, as well as directly inform future management decisions aimed at recovery of a threatened endemic fish species.

**Qualifications:** M.S. in fisheries, ecology, or a related field, a minimum 3.2 GPA, combined verbal and analytical GRE score of 307. Solid quantitative skills are required, as are a good work ethic, writing, organizational and data management skills, as well as the ability to maintain positive working relationships with members of the lab, department and stakeholder groups. 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 incredible outdoor recreation opportunities, as well as being within a short drive of Salt Lake City and its many amenities.

**Stipend:** $1,750 per month stipend, plus tuition, fees and health insurance (total award ~$30,000/yr).

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

**Starting date:** August 2020.

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