

MS Graduate Research Assistantship: Utah State University, UCFWRU (USGS) – Dr. Phaedra Budy’s Fish Ecology Lab (<http://www.usu.edu/fel/>) in the Department of Watershed Sciences & The Ecology Center at Utah State University: San Rafael River Cottonwood Wash Natural Fish Habitat Project

Project Description: The prospective graduate student will develop their MS thesis within the overall framework of a study aimed at understanding the role and origin of a large, natural habitat feature that arose on the San



Rafael River (SRR) in south, central Utah to guide river restoration and fish conservation. Large portions of the lower SRR are extremely degraded. However, given the presence of all three of the “Three Species” (i.e., bluehead sucker, flannelmouth sucker, and roundtail chub), which are protected, the SRR has been the focus of several fish ecology and restoration projects. Previous research has conclusively demonstrated native fish are habitat limited in the lower San Rafael River; however, in 2010, a large reach upstream of the confluence with Cottonwood Wash began to undergo extreme geomorphic change. This reach has been actively changing from a single-thread channel to a multi-thread channel and wetland system that is more complex than any other location along the entire lower San Rafael River. Understanding the processes driving this massive change and documenting fish use of this natural habitat may provide insight regarding how to produce, enhance, or maintain complex habitat for native fishes.

We hypothesize this relatively new and novel reach of extreme river complexity offers high quality habitat for native fishes and opportunities to learn.

Successful candidates MUST be interested in strong interdisciplinary research involving aquatic and fish ecology, geomorphology, and wildlife (beavers).

Qualifications: B.S. degree in ecology, fisheries, biology, or related field and minimum requirements: Last 60 credit hours = 3.2 GPA, combined verbal and analytical minimum GRE score of 307, and 3 exceptional letters of recommendation. Diversity candidates are encouraged to apply. For additional information describing the department, graduate school requirements, faculty, and programs see <http://www.cnr.usu.edu/wats/>

Funding and stipend: The project is fully funded by the Bureau of Reclamation in partnership with the Bureau of Land Management. A monthly stipend starting at \$1550 /month will be provided with opportunities for tiered raises provided at the time of completion of specific graduate education and research goals. Tuition and university-student medical insurance is provided with a modest student co-pay. Total annual award = ~\$28,000/year. Candidates must be willing to work and camp in the remote desert.

To apply: Email: (1) letter of interest, (2) CV-resume (including GPA and GRE scores listed), (3) copies of transcripts (informal), (4) contact info for three potential reference, and (5) informal photocopies of transcripts to: Phaedra Budy: phaedra.budy@usu.edu. Closing: Until filled. Start date: Negotiable; however, preferred start date, spring semester 2020.

