

PECOS PUPFISH CONSERVATION GENOMICS MS ASSISTANTSHIP

Description:

[The Pregler Lab](#) in the [USGS New Mexico Cooperative Fish and Wildlife Research Unit](#) and the [Department of Fish, Wildlife, and Conservation Ecology](#) at New Mexico State University invites applications for a **MS research assistantship** focused on population genomics of Pecos pupfish with an anticipated start in **fall 2024**.

Pecos pupfish populations in New Mexico inhabit small, isolated, saline springs and gypsum sinkholes in the Chihuahuan Desert that are characterized by extreme temperature & salinity gradients. This threatened species has suffered declines in distribution and abundance due to habitat degradation and hybridization with the non-native sheepshead minnow. The student will develop exciting questions to (1) understand the population structure (e.g., history of gene flow, metrics of genetic diversity & inbreeding), (2) explore evidence of natural selection & local adaptation, & (3) investigate potential admixture with sheepshead minnow. Inferences from these analyses will help guide future translocation efforts (i.e., balancing of risks of inbreeding vs. outbreeding depression) and inform the development of a genetic monitoring program for Pecos pupfish. RADseq data is in hand, but there are opportunities to expand the dataset with additional field collections.

This project is a collaborative effort with New Mexico Department of Game & Fish and University of Montana and there may be opportunities to collaborate with other university partners and agencies. Benefits include a salary of \$26,252 k/year, full tuition waiver, and subsidized health insurance. Funding will also be available for conference travel and workshop training for data analyses.

How to apply: If interested, please email Dr. Kasey Pregler (kpregler@nmsu.edu) (1) a statement of interest that describes your educational and research background, as well as your research interests and how this position fits in your career goals (2) curriculum vitae or resume, (3) contact information for three professional references, and (4) unofficial transcripts compiled in a single PDF and save as 'LASTNAME_PecosPupfish_MS.PDF'. Please use 'Pecos pupfish MS position' in the email subject line.

Application deadline is 12/15/23 for full consideration. You can learn more about the Pregler Lab at <https://preglerlab.com>.

Qualifications:

Required: B.S. in fisheries, biology, or related field and possession of a valid U.S. driver's license. The successful applicant must also meet the minimum requirements for admission to the NMSU Graduate School (3.0 GPA in last two years of undergrad), as well as GRE scores for applicants who received the undergraduate degree outside the U.S. Applicants should also have demonstrated excellent written and oral communication skills, and an ability to work independently.

Successful candidates will have proficiency in R, and some prior experience/exposure to bioinformatics is expected. Applicants with experience in fish ecology, statistical & genetic analyses of large datasets are encouraged to apply.

Salary:

- ~\$26,252 / year
- Full tuition waiver
- Subsidized health insurance.