

Post-doc or post-M.S. sought

Research position - Understanding the consequences of conservation actions on stream condition and the associated response of biotic communities

Applications are being accepted for a full-time researcher in the School of Natural Resources, University of Missouri (MU). The primary research will focus on linking biotic endpoints to water quality within the Upper Mississippi River Basin (UMRB) for the goal of predicting biotic response to agricultural conservation practices. Additional objectives include developing regional measures of stream condition and assessing spatial scalability of modeled endpoints.

This research is a component of a USDA Natural Resources Conservation Service (NRCS) funded Conservation Effects Assessment Project - Wildlife (CEAP-Wildlife; www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap) for the UMRB. This project is a collaborative effort to develop a framework to assess, report, and forecast benefits to ecosystem services affected by USDA conservation programs in the UMRB. The UMRB CEAP-Wildlife team is comprised of a multi-disciplinary group of scientists and professionals from MU, University of Kansas, University of Minnesota, Michigan State University (MSU), NRCS, and The Nature Conservancy (TNC). Hydrological engineers and soil scientists will model water quality within the UMRB using SWAT+. The MU researchers will work closely with collaborators at MSU to use modeled water quality outputs (e.g., sediment and nutrient loads or concentrations) as predictors of stream biotic health across the UMRB. These hydrologic and statistical models will then be used to assess the benefits of conservation scenarios to water quality and biotic health. The MU researcher will also engage with scientists at TNC to incorporate these biotic response models into tools that will be used by decision-makers and practitioners in the field. The ideal candidate will have expertise in fish ecology, landscape scale assessments, geospatial sciences, and statistical modeling. At least one lead author publication is anticipated from this project.

Qualifications: M.S. or PhD in Fisheries, Ecology, Natural Resources, or related discipline at the time of hiring. Ability to work collaboratively, experience with species traits/biodiversity metrics and habitat relationships, working at landscape scales, possess strong analytical and organizational skills, proven ability to present and publish results in primary literature, and experience or desire to work with stakeholders, field practitioners, and agency personnel.

Salary: Salary commensurate with education and experience (\$38k - \$52k), plus benefits; 1.5 years.

Application: Send cover letter, CV, unofficial transcripts, and contact information for three references to Dr. Jodi Whittier, School of Natural Resources, University of Missouri. 573-355-3924; whittierj@missouri.edu

Closing date: October 30, 2022.

Weblink: http://www.riverstudies.com/Whittier/documents/2022CEAP_researchposition.pdf