

University of Missouri, Post-doctoral Scholar position – quantifying stream condition based on relationships between biotic endpoints and water quality parameters

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

As a USDA Natural Resources Conservation Service (NRCS) funded Conservation Effects Assessment Project (www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/ceap), the principle objective of this collaborative effort is to assess stream condition relative to water quality in the UMRB. This team is comprised of a multi-disciplinary group of scientists and professionals from University of Kansas, University of Minnesota, Michigan State University, NRCS, and The Nature Conservancy. Hydrological engineers and soil scientists will model water quality within the UMRB using SWAT+. The MU post-doc will use the 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. The ideal candidate will have a strong publication record demonstrating expertise in fish ecology, landscape scale assessments, geospatial sciences (e.g., ArcGIS; QGIS), and statistical modeling (e.g., R). At least one lead author publication is anticipated from this project.

Qualifications: PhD in Fisheries, Ecology, Natural Resources, or related discipline at the time of hiring. Ability to work collaboratively, experience in modeling 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 and agency personnel.

Salary: \$49,000/year 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: open until filled.

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