University of Missouri, Post-doctoral Scholar position – modeling response of biotic endpoints to changes in land management via water quality

Applications are being accepted for a full-time Post-doctoral Researcher at the School of Natural Resources, University of Missouri. The primary research will focus on modeling biotic endpoints linked to water quality within watersheds of the Mississippi River Basin, assessing spatial scalability of the modeled endpoints, and predicting biotic response to agricultural conservation practices.

The project is part of a collaborative team of watershed researchers to model water quality and in-stream biological endpoints linked to agricultural conservation in the Mississippi River Basin. The team includes researchers from University of Kansas, Texas A&M. Michigan State University, USDA Agricultural Research Service, The Nature Conservancy, and USDA Natural Resources Conservation Service. The candidate will work closely with two other post-doctoral researchers at Texas A&M and KU who will conduct watershed modeling of water quality metrics. At least one lead author publication is expected.

The overarching project is to develop SWAT/SWAT+ models at multiple spatial scales and extents within the Upper Mississippi River Basin and use those models to predict and/or extrapolate discharge, and sediment and nutrient loads at individual stream channels represented by the National Hydrography Dataset Plus V2 (NHD+). Based on the SWAT outputs, fish species response to water quality and quantity will be modeled to characterize stream condition. These hydrologic and statistical models will then be used to analyze real-world construct scenarios on water quality.

Qualifications: PhD in Fisheries, Ecology, Natural Resources, or related discipline at the time of hiring. Ability to work collaboratively, experience in modeling species and habitat relationships, working at landscape scale, possess strong analytical and organizational skills, proven ability to present and publish results in primary research literature, and experience or desire to work with stakeholders and agency personnel.

Salary: $49,000/year plus benefits; one year with potential for three years based on annual funding allocations.

Application: Send cover letter, CV, unofficial transcripts, and contact information for three references to Dr. Jodi Whittier, School of Natural Resources, University of Missouri. 573-884-7553; whittierj@missouri.edu

Closing date: open until filled. Start date is flexible but anticipate by November 2020

Weblink: http://www.riverstudies.com/Whittier/index.html