David L Nieland

Subject: River Ecology Postdoc

River Ecology Postdoc
EPA-supported NRC post-doc opportunity now open for application.

The Ecosystem Effects of River Floodplain Restoration and Infrastructure A Postdoctoral Research Opportunity (22.03.05.B8222) is available to investigate the effects of restoration on river floodplain biogeochemistry, water quality, and ecosystem function.

This competitive fellowship is administered by the National Academies Research Associate Program.

Proposals should focus on floodplain ecosystem ecology, nutrient (N, C, and or P) biogeochemistry in water and/or soil using modern ecological techniques. The research approach may include lab experiments, field studies, and literature review to produce peer reviewed publications.
Expertise desired includes knowledge of (1) river floodplain ecology and biogeochemistry; (2) dissolved nutrients especially C, N, and P; and (3) ecosystem ecology. Experience with stable isotopes, water chemistry data, statistics, geographic information systems, and experimental design will be beneficial. This applicant is encouraged to develop novel research questions based on the research interests of the postdoctoral scientist with the adviser to produce peer reviewed publications.

The Associate will work with Principal Investigator Dr. Ken Forshay of US EPA, Office of Research and Development, Ground Water and Ecosystem Restoration Division, at the Robert S. Kerr Environmental Research Center in Ada, OK. This position in EPA's Office of Research and Development includes opportunities for interaction with EPA scientists and scientists at various institutions. Field research may take place at established and TBD locations across the country with travel to field locations.
Our group has ongoing projects that include restoration, levee setback, and indirect discharge, as well as sites that represent the likely scenario of water and floodwater management across the nation. We have a full analytical laboratory and support for analyses. This opportunity allows flexibility in the scientific research and questions. The Associate will support production of policy relevant peer reviewed publications to include
(1) an evaluation of indirect discharge of effluent in floodplains on nutrient dynamics and (2) a management guide based on ecosystem ecology principles for river and floodplain management.

Research areas can include the effects of levee setback, effluent discharge, or restoration on water quality. The proposals should include the generation of new field data and use of existing literature to provide insight on nutrients, temperature, or changes to the biogeochemical processing (e.g., denitrification, nitrification, primary production, and respiration) in floodplain systems. The applicants are encouraged to contact Ken Forshay (forshay.ken@epa.gov) to discuss possible research proposal topics well before the proposal deadline of May 1.

(url below should be one continuous line) http://nrc58.nas.edu/RAPLab10/Opportunity/Opportunity.aspx?LabCode=22&ROPCD=220305&RONum=B8222

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