Postdoctoral Researcher Position Announcement

Location: Moss Landing Marine Laboratories
Co-advised by: Dr Kenneth Coale (MLML), Dr Walter Heady (TNC), and Ross Clark (CCWG)
Term: 12 months – to commence as soon as possible

Background:
The Central Coast Wetlands Group (CCWG) at Moss Landing Marine Laboratories (MLML) in partnership with The Nature Conservancy (TNC) is offering a twelve-month Postdoctoral Scholar Award to research and evaluate the placement and location of different nature-based water quality improvement approaches in the lower Salinas watershed. Salinas Valley growers have a strong incentive under the current Agricultural Order to find solutions to their water quality impairments, particularly nutrients. They are now being monitored at a field level for compliance with drinking water standards and currently no single practice is sufficient to enable compliance. Thus, an opportunity exists for broader evaluation of the efficacy of cooperative management of nutrient runoff. CCWG has implemented several projects demonstrating off-farm treatment wetlands to address elevated nutrient loading associated with intensive agriculture. CCWG and TNC seek a Postdoctoral Researcher to monitor and assemble available water quality data, and then use fate and transport modeling to inform the size, placement, and level of success of off-farm water quality improvement projects. Results of nutrient transport research and modeling will inform a larger collaborative effort to help growers identify the best locations for natural solutions to improve water quality and habitat within a 'management neighborhood' that, together with on-farm improvements, will help the Regional Water Quality Control Board recognize grower cooperatives using this approach to meet the agency's regulatory obligations.

Tasks / Research Areas:
- Compile and synthesize information on the global context of surface water nutrient impairment from intensive agriculture, the associated ecological impacts, and demonstrated off-farm solutions to the problem.
- Support CCWG and TNC's work to demonstrate the appropriate cooperative neighborhood approach to reducing nutrient runoff and nutrient loads to important estuarine fishery habitats including: deploying and monitoring water quality monitoring equipment and samples, assembling and managing data, researching and selecting fate and transport models, modeling nutrient fate and transport, interpreting research and modeling results.
- Provide science support to CCWG to empirically assess and document treatment wetland demonstration projects in the Lower Salinas Watershed including: assisting with study design, data collection, analysis, modeling, and reporting out.
- Communicate research and modeling results, with partners, in conferences and in peer-reviewed literature.
- Grant writing.

Qualifications:
- Ph.D (received within the past 5 years) in the fields of Hydrology, Applied Math, Biology, Wetland Science, Coastal Watershed Processes or related fields.
- Demonstrated knowledge and experience in modeling pollutant and/or water transport processes
- Demonstrated knowledge and experience in hydrologic processes
- Experience/expertise in data management
- Ability to design, collect, analyze, and interpret scientific data and prepare reports of findings
- Working knowledge of common software applications (e.g. Word, Excel, statistical software, scripting software), and familiarity with GIS
- An understanding of freshwater wetland, and estuarine ecosystems
- Works well independently and as part of a tight-knit team
- A desire to communicate results in presentations and peer-reviewed publications

The recipient of the award will receive a stipend of $50,000, with health benefits, for a 12 month appointment. In addition, limited support is available for travel expenses, equipment, and supplies. Second year appointment is contingent on performance and additional grant funding.

To apply, please send cover letter and resume to koconnor@mlml.calstate.edu **by May 30**. Include a description of your qualifications as well as why you think this position is right for you. Additionally please send contact information for 3 academic and/or professional references. Qualified applicants will be contacted after the close date.