

David L Nieland

Subject: POST-DOC in FOOD WEB MODELING on Lake George, NY

The Jefferson Project—an exciting collaborative research endeavor between Rensselaer Polytechnic Institute (RPI), IBM, and The FUND for Lake George— will be hiring a post-doc to develop food web models of freshwater ecosystems.

Researchers in ecology, engineering, computer science, meteorology, and the arts are using Lake George (located in upstate NY) as a model system to better understand how humans are affecting lake ecosystems around the world. Collectively, we are using and creating cutting-edge, “smart” technology to study freshwater ecosystems:
<https://www.youtube.com/watch?v=M0OU9hfyZqU&list=PLC5671247BDB6A0B8>

The Jefferson Project is in its third year of monitoring the physical, chemical, and biological factors of Lake George. These monitoring data are being integrated with data from experiments investigating the impacts of excess nutrients, invasive species, and other contaminants on freshwater food webs. We have already generated advanced weather, hydrology, and lake circulation models. To validate these models, we are using high-resolution data from the “Smart Sensor Web” being deployed at Lake George. Our goal is to link these physical models and integrate them to food web models, allowing us to better understand how humans have altered, and will continue to alter, lake ecosystems. The ideal candidate will have a strong understanding of food web modeling and concomitant publication record. Programming expertise (e.g., C++, Python, R, Matlab) is also highly desired.

Rensselaer has a growing group of aquatic ecologists, first-rate facilities for aquatic research, and a beautiful field station on Lake George. The modeler will also have the opportunity to collaborate with computer scientists and have access to state-of-the-art supercomputers, including the IBM Blue Gene/Q.

For additional information:

<http://relyealab.wix.com/relyea-lab>

<http://faculty.rpi.edu/node/35931>

<http://faculty.rpi.edu/node/35932>

<http://eichll.wix.com/lawrence-eichler>

<http://www.rpi.edu/dept/DFWI/>

<http://www-03.ibm.com/press/us/en/pressrelease/47219.wss>

Applicants should send a cover letter, CV, research statement, and a list of 3 references to Dr. Rick Relyea (relyer@rpi.edu) in PDF format.

Applications will be reviewed as they arrive. The desired start date is April or May 2016.

Dr. Rick Relyea

Executive Director, Darrin Fresh Water Institute Director of The Jefferson Project David M. Darrin '40 Senior Endowed Chair Dept. of Biological Sciences, BT2115 Rensselaer Polytechnic Institute Troy, NY 12180