

Postdoctoral Scholar Position: Ecological Modeler

Position: Postdoctoral Scholar in Ecological Modeling

Topic: Ecological Drivers of Seagrass Decline

Location: The position will be located at Florida Atlantic University, in Dr. Koch's lab, Boca Raton, FL. The candidate will also spend time with Dr. Christopher Madden and other modelers at the South Florida Water Management District in West Palm Beach, FL.

Web: <https://biology.fau.edu/directory/koch-rose/index.php> and <https://moreirafernandeslab.weebly.com>

We are seeking a postdoctoral scholar to further develop and expand an existing seagrass ecosystem simulation model being applied to resource management. The postdoc will be part of a research team working on a project entitled "Managing seagrass ecosystems in South Florida: Identifying and modeling mechanisms and climate impacts triggering seagrass loss and effects on water quality and seagrass restoration". The postdoc will work closely with two PhD students on the project to incorporate microbial, biogeochemical and plant stressor indices from spatial datasets into the seagrass ecosystem model. The modeling goal is also to integrate long-term water quality datasets to examine the relationship between water quality and seagrass sustainability and identify triggers of seagrass decline. The model will serve the management community by providing a tool for forecasting seagrass productivity and sustainability under various scenarios of water quality over seasons, inter-annual variability and climate change.

Duties:

- The postdoc will take the lead on integrating available physiological, ecological and water quality data into a fully developed unit seagrass ecosystem model.
- Parameterize the model for two coastal estuaries in southeast Florida.
- Incorporate long-term water quality datasets as inputs to the model.
- Integrate climate change scenarios using sensitivity analysis.
- Present model outputs to the seagrass management community.

Qualifications:

- PhD degree in Ecological Modeling or similar field

Desirable skills:

- Experience developing parameters, calibration, and sensitivity analyses in ecological models with preference to candidates with research in aquatic plant systems.
- Experience incorporating marine biogeochemistry and water quality into ecology models.
- Excellent writing skills to develop manuscripts/reports, and communication skills to be a productive member of the research team in academia and management.

The position will be located at Florida Atlantic University, Boca Raton, FL with a start date of June 2025 for a 2.5-year period. Interested candidates should send a cover letter stating their interest in the position and available start date, CV, transcripts, link to dissertation, and 2 letters of recommendation to Dr. Marguerite Koch via email at mkoch@fau.edu. The salary range is \$50,000-\$54,000/yr with benefits and 3% increase/yr.