

PhD Assistantship: Microbial Ecology Research

Position: PhD in Integrative Biology

Topic: Seagrass Microbiome Interactions

Location: The position will be located at Florida Atlantic University in Dr. Fernandes' Lab, Davie, FL, collaborating with Dr. Koch's Lab, Boca Raton, FL

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

The Fernandes and Koch labs at Florida Atlantic University are seeking a PhD candidate for Fall, 2025 to conduct research on the relationship between seagrass rhizosphere microbial communities and how they influence the biogeochemistry of the root zone that affect seagrass health. This microbiome-seagrass relationship will be evaluated at long-term seagrass monitoring sites in southeast Florida estuaries, specifically Indian River Lagoon and Florida Bay. The PhD candidate 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 student will work closely with a Postdoc and another PhD student on the project to incorporate the microbial, biogeochemical and plant stressor indices from spatial datasets into a seagrass ecosystem model. The student will have the ability to develop their own research project in association with the larger program and will be supported on a 3-year EPA grant with a start date of June 1, 2025, and subsequently by internal awards and/or teaching assistantships.

Duties:

- Sampling of sediment-microbial and biogeochemical parameters in the field
- Analyses of datasets and generation of publication-quality manuscripts
- Collaborate with lab members on the broader project
- Present findings at national/international conferences

Qualifications:

- Master's degree with expertise in microbiology or related field

Desirable skills:

- Ability to independently develop and design research
- Experience with microbial sequencing analyses
- Strong analytical and coding skills in R
- English communication skills, both oral and written, and ability to work collegially

Application: Interested candidates should send a cover letter stating their interest in the position and available start date, CV, transcripts, thesis, as well as 2 references, to Dr. Marguerite Koch (mkoch@fau.edu) and Dr. Vanessa Fernandes (vfernandes@fau.edu). Selected candidate will be requested to immediately apply to FAU's Integrative Biology PhD Program for Fall 2025.