Algal Ecology Internship

The Ecology & Biogeochemistry of Marine & Coastal Systems Lab is seeking an undergraduate intern interested in ecology, and especially aquatic and plant ecology, to compare our method for removal of microalgal epiphytes from Sargassum and other macroalgae (submerged aquatic vegetation) to traditional methods.

Project: Epiphyte removal from macroalgae method comparison

Microalgal epiphytes, or the very small plants that grow on other plants but are not parasitic, that grow on aquatic plants are essential primary producers within freshwater and marine ecosystems. A reliable epiphyte removal method is critical for estimating the productivity of the ecosystem. Traditionally, epiphytes have been removed from plant surfaces for quantification using a scraping method via either glass slides or scrapers. However, the scraping method has the potential to misrepresent the epiphytic biomass and community. For instance, if host plant tissue is accidentally pierced and added to the scraped epiphytes, the epiphyte biomass will be skewed.

Our lab has developed a novel method for removing microalgal epiphytes from the surface of pelagic *Sargassum*. The student will be responsible for collecting macroalgae samples and removing epiphytes from these samples using several different methods, with the assistance of the Dubbs/Johnson research team. The removed epiphyte samples will be sent to our collaborator at the USFDA for analysis. The intern will take primary responsibility for the analysis and interpretation of resulting data with guidance from the Dubbs/Johnson research team. The intern will also help to contribute to a manuscript about the method comparison experiment and its outcomes with the hope that they will be a published author as a result of their internship. The intern will be involved in additional research, field activities, and laboratory analyses according to their interests and availability.

The minimum education requirement for this position is a high school diploma or equivalent. We anticipate the internship running from May 16-July 31, 2024, with the intern working approximately 10-20 hours per week. If selected, the position will be supported through research programs. The deadline to apply for this position is March 15th, 2024.