

Using Spectral Signatures to Study Benthic Microalgal Communities Jedi Kauanui '23 and Valentina Santos '24

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The Eastern Shore of Virginia is home to a large and successful seagrass restoration



project. This project has restored nutrient cycling and habitat for fish and other marine species. While benthic microalgae are an important part of the seagrass community, little research has been done on the impacts of this restoration on benthic microalgae. A Randolph College SRP project in 2021 demonstrated that the benthic microalgae

living in restored seagrass beds are different from the benthic microalgae living in adjacent bare areas. However, the method used, visual identification of benthic microalgae, is labor-intensive, meaning that only a limited number of samples were analyzed. This summer, we will try a new method, using the light absorption characteristics of the pigments in the benthic microalgae, to classify the algae. This method has been successfully used in lake systems and will allow us to look at spatial and temporal differences in benthic microalgae.

