

Morphological analysis and abundance of pelagic Sargassum fluitans and natans in South Florida

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Abstract Id: 574 Submitted: March 8, 2019 Event: Conference for Undergraduate Research at FIU 2019
Topic: **Biology**

Recently, massive Sargassum influxes have begun washing ashore along the Caribbean, Brazil, West Africa, and southern Florida. This has greatly affected the ecology of the impacted coasts, tourism, and fishing industries in the corresponding cities (Franks). However, the impacts from the blooms have yet to be determined. The species' taxonomic identity of the Sargassum landings will be determined and an estimate of the abundance and seasonality of the Sargassum landings in some areas of South Florida will be found, as well. The specimen collected in this area are expected to be the same four morphological types found previously in the region and are also expected to be consistent with those from the Sargasso Sea. A careful analysis of each specimen of Sargassum collected will be taken, as well as several measurements in order to distinguish which morphotype of *S. fluitans* or *S. natans* it is. This will allow for both the comparison of morphologies and the ability to identify if the species found are morphologically consistent to the corresponding species found in the Sargasso Sea and/or Gulf of Mexico. The plasticity of each morphotype will be found using measurements recorded. Lastly, an analysis of the biomass or abundance of each species, as well as each morphotype, will be conducted. This influx of the macroalgae can be the cause of major effects to the surrounding beaches of south Florida and all around the world. In order to begin discovering the effects taking place, it is critical to distinguish between the morphological forms that are landing ashore and the abundance of its presence.