



A Baseline Examination of Habitat Preference of the Gulf Pipefish and the Implications of an Indicator Species

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Due to the lack of research of habitat preference of gulf pipefish (*Syngnathus scovelli*), a laboratory study was conducted to determine if gulf pipefish spend a significant amount of time in a particular habitat composition. Changes in environmental conditions may increase the presence of submerged aquatic vegetation (SAV) in seagrass beds. Pipefish may reveal to be an indicator species to evaluate the health of seagrass beds in relation to SAV cover, as pipefish are often considered obligate seagrass species. Experimental set-up included a 50-gallon tank divided into four quadrants, presenting four different habitat options: bare crushed coral (control), seagrass only, mixed seagrass and macroalgae, and macroalgae only. Fish were observed for 3 replicates on their observation day; each trial consisted of an individual female, an individual male, and paired male and female; their time spent in each quadrant was recorded and scored as a percentage. Fish in this study preferred the mixed habitat most frequently. This preference could be indicative of an intermediate disturbance preference, indicating that a moderate amount of macroalgae cover is preferable for gulf pipefish, and may have positive impacts for the ecosystem; potentially providing insight into management practices when monitoring seagrass beds.