

Increasing Juvenile Grouper Habitat Within Sarasota Bay Through Deployment of Targeted Reef Modules

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While most of Florida's artificial reefs are located in coastal and offshore waters, Sarasota Bay has had an ongoing inshore, estuarine artificial reef program since the 1980s. The reefs are popular fishing destinations that are already supported by materials such as rocks and reef balls. In June, 2013, a variety of new reef modules were dropped on three existing reefs in Sarasota Bay. (The same materials are planned for deployment on three additional reefs in Manatee County in 2015). The new modules were specially designed to attract young reef fish, particularly gag grouper, during their estuarine-dependent life stage. The "deep cover" module, in particular, mimics natural ledges and can hold large numbers of fish, offering safety from predators and humans.

In 2015, after two years of "soaking", we will begin monitoring these reefs. We will map the seafloor and reef materials within the permit area using side-scan sonar to create a mosaic map of each region and the natural habitat areas that border them. We will also characterize and compare fish assemblages utilizing baited remote underwater video stations (BRUVS) and underwater visual census (UVC) methods to determine similarities and differences in fish abundance, species richness, and composition within and between habitats (artificial reef vs. seagrass vs. sand bottom). Special attention will be given to longer-resident reef fish species that may be utilizing these habitats, particularly juvenile gag grouper, *Mycteroperca microlepis*, an economically important species.