

***Diadema antillarum* Production and Distribution to Florida Partners – Creating a Growout and Stocking Network**

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Severe degradation throughout Florida's Coral Reef has resulted in >90% coral cover loss since the 1980s and actively threatens the identity, culture, and economy of this region. This reality has spurred the development and rapid expansion of in-water coral propagation and outplanting activities intended to restore live coral cover; unfortunately, restoration has been unable to keep up with the rate of ecosystem decline in the face of widespread and continued coral bleaching and disease. Overcoming this immense problem requires an adaptive approach involving holistic ecological intervention strategies.

One such strategy is re-establishing missing functional herbivory to prevent competitive overgrowth of corals by fast growing benthic algae. In response to this desired capacity, the University of Florida and The Florida Aquarium have been working since 2018 to develop technologies for large-scale aquaculture of the keystone long spined sea urchin *Diadema antillarum*. These efforts have been successful, with nearly 3,000 juvenile urchins distributed to Florida partners to date and collaborators in the Caribbean now producing *D. antillarum* as well. An emerging issue has been identifying facilities with the space and expertise to rear urchins from small juveniles to larger, reef-ready (~4-5cm test diameter) animals. This presentation will detail the development of a network of collaborators making efforts to address this bottleneck. Juvenile transport and grow-out investigations that occurred in both in-water and land-based enclosures will be discussed, along with future directions and opportunities for upscaling the program. Finally, new data coming from Florida and elsewhere are offering clues about best practices for the acclimatization and stocking of *D. antillarum* to consume macroalgae on coral reefs.