



Nursery-grown Staghorn Coral Transplanted to Molasses Reef

About five years ago, marine life collector and sanctuary volunteer Ken Nedimyer noticed new staghorn coral colonies growing on cement blocks in his open-water “live rock” nursery permitted by the sanctuary. Since each of these colonies grew from a coral larvae (called a planula), each was a genetically unique individual. Nedimyer and his daughter Kelly cultivated several of these volunteer staghorn colonies and when they were large enough, transplanted them under the sanctuary manager’s permit to the *Wellwood* grounding site on Molasses Reef. This site was selected as the location for the new colonies to replace the many corals lost during the *Wellwood* tanker grounding incident.

This past summer, again with the help of his daughter Kelly and student volunteers from University of Central Florida, Nedimyer coordinated the transplanting of another collection of nursery grown staghorn colonies. This time though the corals were cemented onto an area near Molasses Reef that had not been damaged by a boat grounding. Instead, the site selected under the manager’s permit was a site where staghorn colonies were known to exist in the recent past, but were no longer present. Scientists plan to monitor the health and growth of these transplants over the next several years.

Staghorn coral, *Acropora cervicornis*, is a branching species that was commonly found growing in thickets along the reef tract in the not-too-distant past. Due to population declines, staghorn coral and a closely related species, elkhorn coral (*Acropora palmata*), were placed on the federal threatened species list in 2006.

This coral restoration transplant project is different from previous efforts because a non-injured site was chosen and because the genetic fingerprint, or DNA, of each genetically unique colony was analyzed prior to the relocation. Knowing how well each genetically unique colony survives in its new habitat during the next few years may help managers better protect corals in the future.

The Sanctuary Friends Foundation of the Florida Keys provided funds for this project. To view a coral restoration video or find out more about the Coral Restoration Project, please visit www.sanctuaryfriends.org.



Nedimyer carefully removes colonies for transplanting from his permitted “liverock” nursery. Photo: Jennifer Nedimyer



This module at the *Wellwood* site received six small staghorn transplants in 2003. Today, there are more than 45 colonies on the module. The increase has been taking place over time as coral fragments, broken by divers, turtles and sharks, were reattached by Nedimyer. Nedimyer has learned to take epoxy with him each time he visits the site. Photo: Ken Nedimyer



Nedimyer (*right*) oversees the transplant work of two volunteer students from University of Central Florida in July 2007. The process involves cleaning the attachment site and then using epoxy to glue the base of the coral fragment in place. Photo: Jennifer Nedimyer