



Coral restoration in the Florida Keys using colonies derived from aquacultured fragments

Introduction:

Restoration of damaged coral sites is limited by the availability of coral colonies. Aquaculture is emerging as a viable method of large-scale production of coral colonies using fragmentation. Efforts by The Florida Aquarium, the University of Florida, Mote Marine Laboratory, and others have shown that many species of *Atlantic Scleractinia* can be fragmented and grown in land based systems. Can these aquacultured fragments be utilized in reef restoration? Two questions emerge concerning the feasibility and direction of this effort:

1. Will aquacultured corals become a vector for disease introduction when returned to restoration sites; and
2. Is survival success of reintroduced fragments affected by culture techniques?

Objectives:

- Establish a disease diagnostic procedure and health assessment protocol for aquacultured coral fragments for the issuance of a federal certificate of health prior to reintroduction to restoration sites.
- Reintroduce coral colonies cultured from fragments from Atlantic *Scleractinia* species to the Florida Keys National Marine Sanctuary.
- Evaluate the survival of coral fragments when reintroduced to a restoration site.

Approach:

The project evaluates the feasibility of using fragments from orphaned corals, cultured in land-based systems, and their survival when placed in a restoration site. Protocols and procedures are being developed for issuance of a standard federal health

certificate for aquacultured coral colonies to address concerns of disease introduction.

Benefits:

- A protocol that coral cultivation facilities can follow to ensure healthy fragments for certification and reintroductions.

Location:

The Florida Aquarium; The Tropical Aquaculture Laboratory, University of Florida; Mote Marine Laboratory; and The Florida Keys National Marine Sanctuary.

Contact:

Ilze K. Berzins, The Florida Aquarium, I1Berzins@FLAquarium.org

