NSU scientists aim to save coral reefs
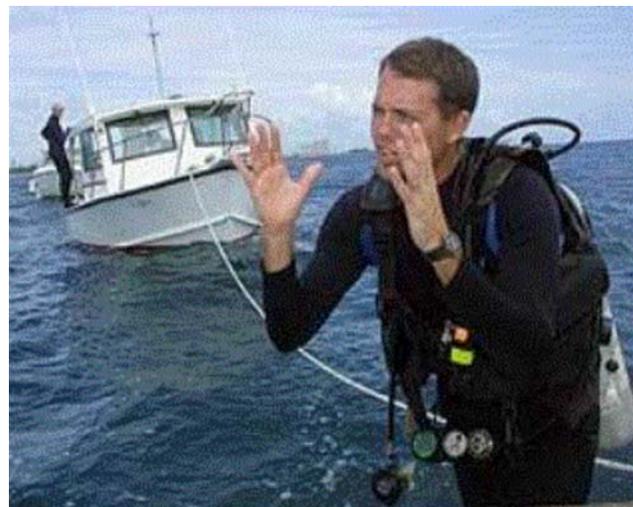
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The Herald

Scientist David Gilliam of Hollywood talks to fellow divers from Nova Southeastern University's boat, the Researcher, before going down to transplant coral in the school's nursery off Dania Beach.

On the ocean floor, about a mile and a half off Dania Beach, a team of diver scientists is working to keep Broward's coral alive.

Nova Southeastern University researchers have created a ''nursery,'' where pieces of broken coral are attached to an artificial reef to grow. When the natural reef is damaged by the disease known as bleaching, the next hurricane or ship grounding, they hope the coral nursery can be used to repair it.

Coral reefs are ''under stress all over the world and especially in Florida,'' NSU scientist Richard Dodge said. ``If you didn't have the reefs, you wouldn't have the fish or the pretty sponges or soft corals that wave back and forth, and you wouldn't have the sand for our beaches.''

The two-year study by NSU's marine biology department aims to restore sparse areas of the reefs, which also provide food for small fish and hiding spots for larger fish escaping predators.

Accidents like the one in 1998 in which wind and waves caused a Panamanian freighter to drag its anchor and clip the tops of the reef near Port Everglades have put Broward's coral in a steady decline.

''It's important we preserve what we've got, but also if corals and coral reefs are damaged, it's important that we try to restore them,'' Dodge said. ``Coral reefs are the rain forest of the ocean.''

NSU's efforts are funded by a $25,000 grant from the National Oceanic Atmospheric Administration and about $50,000 in resources donated by the county, including use of a 28-foot boat.

The researchers have been creative in stretching the money. Among their tools: a laundry basket, a crowbar, laminated cards, Ziploc bags, cement, a pencil and waterproof paper.

Scientists David Gilliam and Richard Dodge and Jamie Vernacchio, a graduate student in marine biology, are also saving money by using some volunteer divers to help them.

One Sunday a month, two

boats -- the Researcher and the Monitor -- sputter off from NSU's Oceanographic Center at John U. Lloyd Beach State Park in Hollywood and

LIVE SPECIMENS: Pieces of coral, tagged and protected inside plastic bags, lie in a cooler before they are taken to Nova Southeast- ern University's nursery, where they'll be attached to an artificial reef to grow. NSU's efforts are funded in part by a $25,000 grant.

PHOTOS BY TOM ERVIN / FOR THE HERALD

anchor off Dania Beach. Divers go down 35 feet in search of loose coral.

If they find it stuck to a rock, they chisel it off with a crowbar. Divers seal the coral pieces in numbered plastic bags and place them in the laundry basket. With a waterproof paper and pencil attached to the basket, they record data about the coral's condition and where it was found.

The basket is pulled up and its contents placed inside a cooler filled with bubble wrap to protect the living tissue on the surface of the coral.

Then the divers take the boats out to their nursery.

On Sunday, volunteer diver Karen Hausheer of Plantation used a paint scrapper to scrub algae from the coral pieces so cement would stick to them. Then they were attached, tagged, to the artificial reef.

FIGHTING CURRENT: Jamie Vernacchio, a graduate student in marine biology, carries coral that she will transplant in the nursery.

On this dive, 20 fist-size pieces were attached to the reef in the nursery, where they will grow -- slowly.

On average, coral grows about one-fourth to one-half centimeter a year.

The next time the reef is damaged, the healthy coral will be transplanted back to the natural reef.

Gilliam said he and his staff have saved 220 pieces of loose coral in the past 18 months with a success rate of 90 percent.

''When I step back and look at what we've done in a 45-minute dive, it's impressive,'' Vernacchio said.