Expedition to study reefs' health

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It's been more than two decades since the federal government restricted anglers' access to parts of the Oculina reefs, the giant tangles of tree-like, ivory-colored coral that lurk in the ocean's depths from Fort Pierce to Daytona Beach.

The goal: protect the delicate reefs and the hundreds of fish, shrimp and crabs that live among them.

But has it worked?

Scientists are hopeful. On Tuesday, about 15 of them will start an eight-day expedition to the reefs, looking to assess the only known deepwater Oculina reefs in the world.

Discovered in 1975, the reefs likely started forming about 1,000 years earlier. Today, the series of pinnacles, mounds and ridges reach as high as 100 feet.

"Because they're deep-water corals, people don't go out and dive them, so they might not know as much about them," said Kim Iverson, public information officer for the South Atlantic Fishery Management Council. "But they're just as critical for the fish and other creatures that live there as the near-shore reefs."

The reefs are particularly important for fish like grouper, which spawn near the structures. The problem is, just as the fish and other animals were drawn to the reefs, so were the fishermen. Fishing for shrimp and scallops has damaged a large chunk of the corals.

In 1984, bottom trawling and anchoring were prohibited in a 92-square mile portion of the reefs, which had been overfished, especially for grouper and rock shrimp. In 2000, the restrictions were expanded to include most of the known reef system, about 300 square miles.

Officials also closed a stretch of the reefs between Fort Pierce and Sebastian to snapper and grouper fishing in 1994 as part of a 10-year experiment.

But since then, scientists have had only infrequent trips to measure the success of the restrictions.

"It's been pretty sporadic in the past because of funding issues, but we're hoping this will be the start of a long-term project," Iverson said.

Tuesday's expedition will include scientists from Harbor Branch Oceanographic Institution, the National Oceanic and Atmospheric Administration, the Florida Fish and Wildlife Research Institute and universities from across the country.

They hope to get a better idea of just how widespread the reefs are, using deep-sea divers and remotely operated vehicles to verify a new sonar map of the region.

The scientists also hope to find a greater number of fish around the reefs and get an up-close look at the corals, to see if they're rebounding.

"We've seen some recovery in the past, but these corals take years and years to grow back," said Andrew Shepard, director of NOAA's Undersea Research Center at the University of North Carolina at Wilmington. "It takes almost 40 or 50 years to get a basketball-sized thicket growing."

Like Iverson, Shepard is optimistic the expedition will be the first of many in the coming years. Even before their trip Tuesday, the group is planning another in May.

Follow the expedition. Go to http://www.at-sea.org/ for daily Web logs.