

19.1 History of the Clifton S. Perry Memorial Reef

In the winter of 2005 nine barge loads of concrete and steel materials were deployed on the Clifton S. Perry Memorial Reef in 67 feet of water within the Donaldson permitted artificial reef site in Martin County, Florida. These materials came from the decommissioned Frank Wacha draw bridge that spanned the Indian River Lagoon in Jensen Beach. The new reef was named in honor of one of the original founders of the Florida Oceanographic Society (FOS) in the early 1960's. FOS was the first non-profit environmental group in the area and Mr. Perry's early efforts in the Society helped establish the original artificial reef deployments offshore Martin County.

19.2 Dive Data

Max. depth at bottom in sand = 65 feet

Min. depth at top of peaks = 47 feet

Underwater visibility this day = 35 feet

Bottom water temperature = 68° F

Surface water temperature = 73° F

Divers breathing mode and gases = SCUBA with NITROX 36%

19.3 Clifton Perry Memorial Reef Orientation

Figure 36 shows a chart with the location of the Perry reef in the northeastern area of the Donaldson Reef Site. The location of the Lyons Shallow Reef deployed in 2006 is shown to the SE of the Perry Reef.

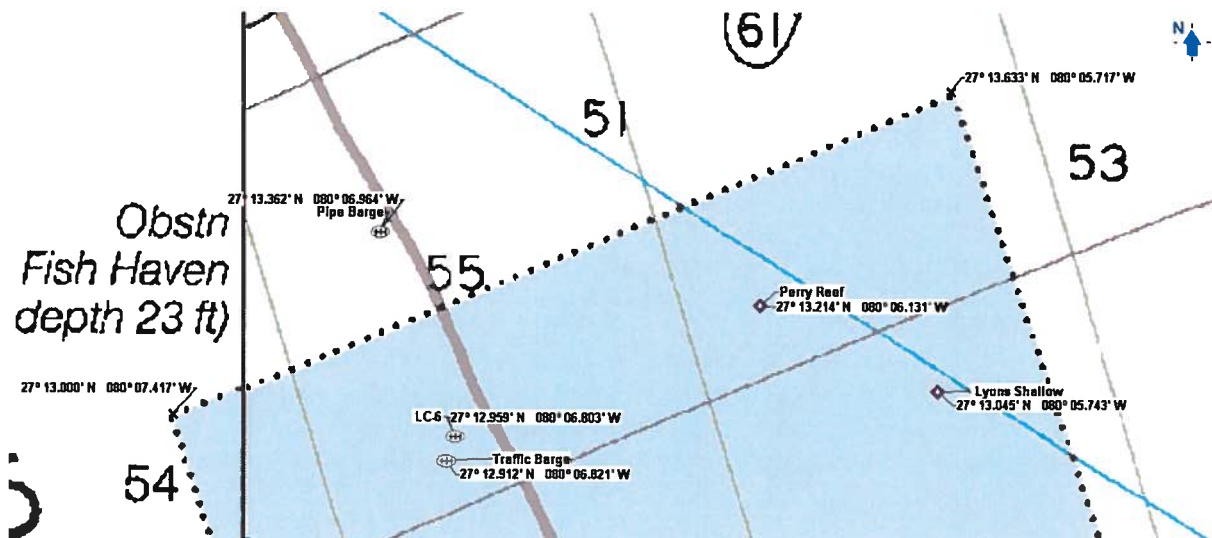


Figure 36. Chart showing Locations of Perry and Lyons Shallow Reefs

19.4 Representative Photographs

Figure 37 shows representative photographs of the Perry memorial Reef taken on April 3, 2006. Bridge pieces, sheephead, a diver, arrow crab, and benthic growth are shown in the photographs.

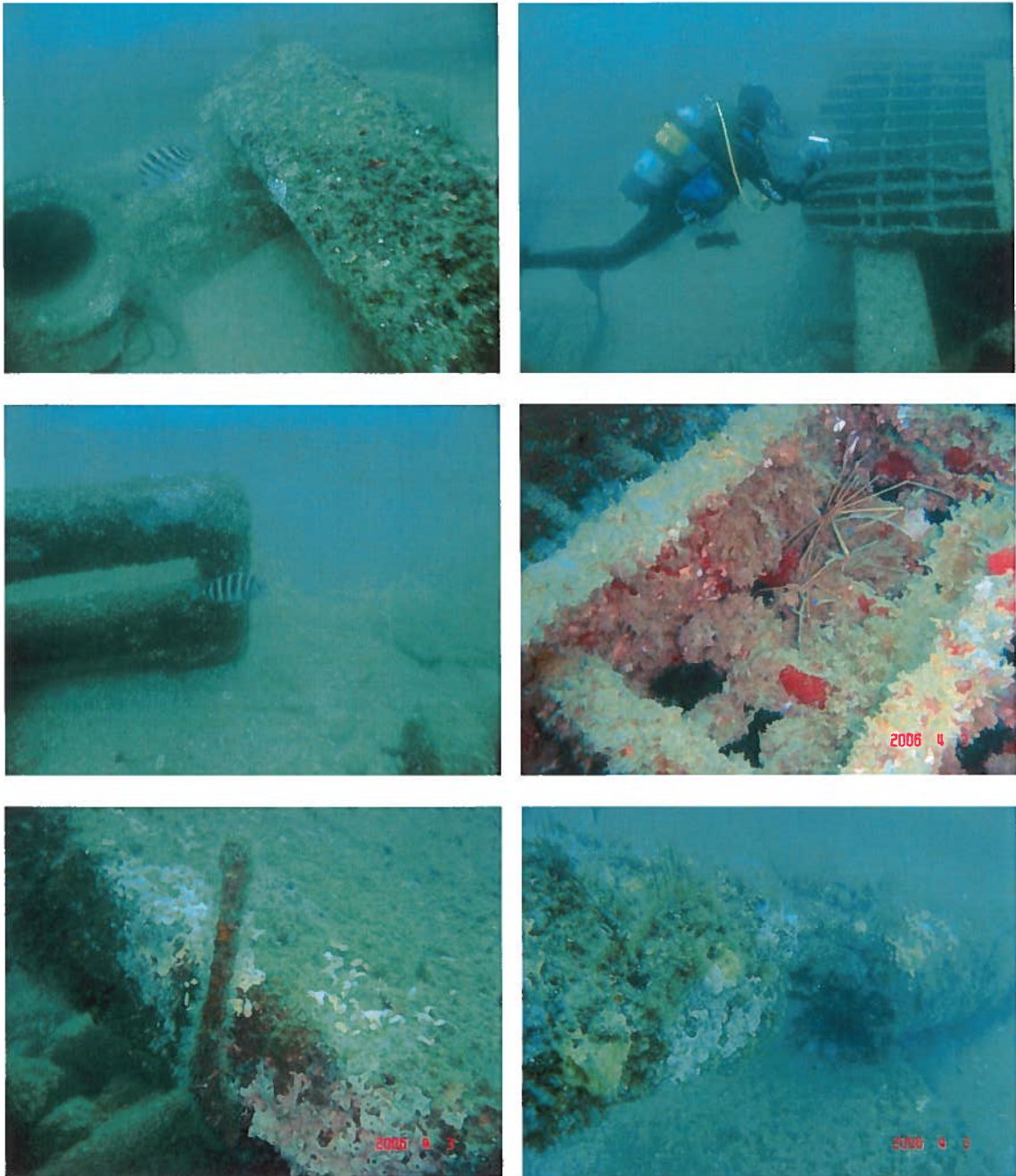


Figure 37. Photographs of the Perry Memorial Reef

19.5 Reef Components Stability

Table 29 shows the 2005 and 2006 profiles from the peaks of reef materials. The reef lies in an elliptical array from east-southeast to west-northwest. The overall footprint gathered from GPS data gathered during deployments in February 2005 is 330 feet by 280 feet. The highest reef profile is 20 feet at a spot with much stacking and a large concrete pile sticking up at about a 60° angle to the seafloor. The top of the reef at this location is at a depth in 2005 of 40 feet in 67 feet of seafloor depth. In 2006 that same spot was at a depth of 47 feet. The average profile is approximately 15 feet above seafloor at other areas of stacking.

Table 29. Clifton Perry Reef Profiles, 2006

<i>Specific Location</i>	<i>Feb. 2005</i>	<i>April 2006</i>	<i>2005 max. profile height</i>	<i>2005 avg. profile height</i>	<i>2006 max. profile height</i>	<i>2006 avg. profile height</i>
Tops of highest summits (feet)	50, 48, 50, 40, 46	50, 47, 50, 48, 53	27	19	20	15
Surrounding seafloor depth (feet)	65, 66, 66, 67, 64	64, 64, 65, 63, 66	--	--	--	--
Seafloor depth in scoured areas (feet)	68, 67, 66	66, 67, 66	--	--	--	--

19.6 Fish Species and Abundance Findings:

Table 30 presents the fish species observed and documented during monitoring on April 3, 2006

Table 30. Clifton Perry Memorial Reef Fish Census

<i>Marine Species Identified</i>	<i>2006 Observed</i>	<i>Juvenile or Adult</i>
Tomtate	M	A
Amberjack	M	A
Barracuda	M	A
Beau Gregory	F	A
Belted Sandfish	F	A
Black Margate	M	J and A
Black Seabass	M	J and A
Blue Runner	A	A
Doctorfish	F	A
Fry (unidentified species)	A	J
Gag Grouper	F (4)	A
Goliath Grouper	M (12)	A
Lane Snapper	S	A
Porkfish	M	J and A
Puddingwife	F	A
Round Scad, Cigar Minnows	A	A
Sergeant Major	S	A
Sheepshead	A	J and A
Sheepshead porgy	F	A
Snook, common	M	A
Spotfin Butterfly	S	A

'A' Abundant (>100), 'M' Many (100 to 11), 'F' Few (10 to 2) or 'S' Single Individual

19.7 Clifton Perry Memorial Reef Summary

After one year, there is considerable benthic and pelagic marine species inhabiting the Perry Reef. There has been settlement of some of the reef units, with a change in maximum reef height of seven feet (from 27 to 20 feet), but average loss of reef height of only four feet. The overall size of the reef is the same as when deployed.