

10 Tension Barge

Due to the deep depths and sometimes poor offshore conditions, this deep site is not always able to be monitored. This site was monitored in 2007, with previous monitoring attempts unsuccessful due to sea conditions. This is the first full monitoring performed since its 2004 deployment.

Construction date: July 17, 2004

Monitoring date: September 14, 2007

Location: Sirotkin permitted artificial reef site

GPS coordinates: 27° 13.527 North / 80° 00.261 West

10.1 History of the Tension Barge

The Tension Barge was owned by the Sterling Maritime Barge Company. After many years of service, its last working assignment was in the dock and pier construction near the Roosevelt Bridge in Stuart, Florida along the Okeechobee Waterway (St. Lucie River).

Over the years the barge had developed many holes in the steel plates of the hull and had sank and was refloated many times. An underwater inspection of the hull was performed by commercial divers, who determined the damage was extensive and repairs would be too costly to be feasible to put the barge back into active service. A donation of the barge to the Martin County Anglers Club and the Martin County Artificial reef program was worked out and completed in Spring of 2004. After several months of patching the many holes and cracks the Tension Barge was refloated successfully and towed offshore by the tugboat "Alia" of Meridian Marine.

On July 17, 2004 the Tension barge was deployed in 190 feet of water in the northeast quadrant of the Sirotkin Artificial Reef Site. This is the northernmost Martin County Artificial reef and is approximately 275 feet north of the High Queen/Zeppo which was deployed a year earlier in Aug. of 2003.

10.2 Tension Barge Orientation

The barge lies in an east-west orientation with the bow facing east. She must have hit the bottom at an abrupt angle as the bow (east) end is damaged with the hull twisted in an upward angle. As many barges that are scuttled in the deep ocean, she is completely upside down. The majority of the fish life is seen at the raked ends of the hull, where fish species have easy access to the insides of the hull for protection from predators.

10.3 Reef Components Stability

The Tension Barge reef sits on the bottom in 190 feet of water depth. The highest profile has a depth of 178 feet. The barge is 150 long by 40 feet wide and has a profile of 12 feet. She is 8.3 nautical miles ENE of the St. Lucie Inlet on the western edge of the Gulf Stream. Currents in this area are often over 2 knots to the north and in the summer months can exceed 4 knots. There is no apparent movement of the reef since original deployment in 2004.

10.4 Fish Species and Abundance

The fish species census data from September 15, 2007 are shown in Table 12. Particularly noteworthy are two species known as deep-water fishes (300 – 2000 feet): the Roughtongue Bass, *Holanthias martinicensis* and Red Barbier, *Hemanthias vivanus*. Also an abundant growth of the deepwater species of hard corals *Oculina vericosa* is now attached and growing on the steel surfaces of the barge.

Table 12. Tension Barge Fish Census

Common Name	Scientific Name	Adult or Juvenile	2007
Bank seabass	<i>Centropristis ocyurus</i>	A	M
Black seabass	<i>Centropristis striata</i>	A	M
Greater amberjack	<i>Seriola dumerili</i>	A	M
Red Barbiera	<i>Hemanthias vivanus</i>	A	M
Roughtongue Bass	<i>Holanthias martinicensis</i>	A	M
Sheepshead porgy	<i>Calamus penna</i>	A	F
Yellowtail Reef fish	<i>Chromis enchrysur</i>	A	F
	Total Number of Species:		7