

9 High Queen/Zepo

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 the only other monitoring in 2004, prior to the 2004 hurricanes and one year after its deployment.

Construction date: August 7, 2003

Monitoring date: August 15, 2007

Location: Sirotkin permitted artificial reef site

GPS coordinates: 27° 13.419 North / 80° 00.270 West

9.1 History of the High Queen/Zepo

In the fall of 2002 a marine accident occurred at the St. Lucie Inlet in rough seas. A tugboat "High Queen" and an unnamed barge grounded up onto the north rock jetty of the inlet. Both vessels sank and broke apart in the next several months. During the winter, seas continued to batter the vessels until complete salvage was no longer feasible. A contractor was hired to cut up the vessels in March of 2003 and load the remnants onto another steel barge. This barge was named the "Zepo" by the Martin County Anglers Club. All three vessels were sunk as one conglomeration in the northeast corner of the Sirotkin Permitted area on August 7, 2003 in 190 feet of water near the shipwreck "The Wickstrom".

9.2 High Queen/Zepo Orientation

During the conversion to an artificial reefsite the intent was to have all the steel remnants of the High Queen and barge to sink as one on the Zepo barge to provide as much profile off the seafloor as possible. Many of the pieces were welded to the Zepo in an attempt to keep everything together during the scuttling. This did not occur as planned although an interesting array exists on the seafloor. The hull of the High Queen ended up partially underneath the Zepo and is supporting the upside down Zepo barge on the north side. This has allowed many hiding places for Grouper and other fish to hide. Most of the steel from the other barge is in a large pile on the south side of the Zepo.

The High Queen/Zepo reef remains on the bottom in 190 feet of water depth. The reef components lie in an east west orientation with the bow facing east. The highest profile has a depth of 175 feet. There is no apparent movement of the reef since original deployment in 2003. Underwater photographs of the High Queen/Zepo are shown in Figure 17.



Figure 17. High Queen/Zeppe Photographs

9.3 Reef Components Stability

The High Queen/Zeppe reef remains on the bottom in 190 feet of water depth. The highest profile has a depth of 175 feet. There is no apparent movement of the reef since original deployment in 2003. The overall footprint of this reef is 160 feet by 80 feet. The highest reef profile is 15 feet at a spot with much stacking of steel sections of the cut up barge. All sections seem to be quite stable and have not shifted any noticeable amount, even after the hurricanes of 2004 & 2005. Some cracking of the hull has been noticed as the entire Zeppo barge is upside down and resting on top of the hull of the High Queen.

9.4 Fish Species and Abundance

The fish species census data from September 15, 2007 are shown in Table 11. Particular noteworthy is that this is the first time Roughtongue Bass, *Holanthias martinicensis* and Red Barbier, *Hemanthias vivanus* had ever been reported in Martin County waters on an artificial reef. These two species are known as a deep-water species (300 – 2000 feet) and have rarely been seen by divers. 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 Zeppo, mostly on the south side hull and inside in the overhead in the bow and stern rake areas.

Table 11. High Queen/Zeppo Fish Census

Common Name	Scientific Name	Adult or Juvenile	2007
Bank Seabass	<i>Centropristis ocyurus</i>	A&J	M
Banks Butterflyfish	<i>Prognathodes aya</i>	A	S
Black Grouper	<i>Mycteroperca bonaci</i>	A	S
Black Seabass	<i>Centropristis striata</i>	A	F
Cubby	<i>Pareques umbrosus</i>	A	F
Greater Amberjack	<i>Seriola dumerili</i>	A	M
Red Barbier	<i>Hemanthias vivanus</i>	J	M
Red Snapper	<i>Lutjanus campechanus</i>	A	F
Rock Beauty	<i>Holacanthus tricolor</i>	J	S
Roughtounge Bass	<i>Holanthias martinicensis</i>	A&J	M
Sheepshead	<i>Archosargus probatocephalus</i>	A	S
Sheepshead Porgy	<i>Calamus penna</i>	A	M
Slippery Dick	<i>Halichoeres bivittatus</i>	A	S
Yellowtail Reef Fish	<i>Chromis enchrysur</i>	A	F
	Total Number of Species:		14