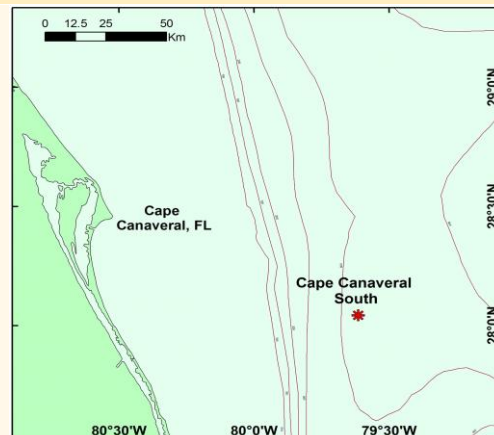
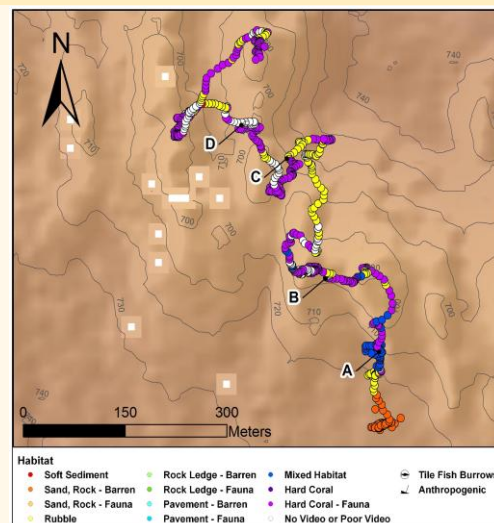


DIVE NUMBER: JSLII-3719**STUDY AREA: Cape Canaveral South****STATION OVERVIEW**

Project	Deep-sea Coral Research
Principal investigators	SW Ross ¹
PI Contact Info¹	Center for Marine Science, 5600 Marvin Moss Ln., Wilmington, NC 28409
Purpose	Exploration of Deep-water Coral Ecosystems off Cape Canaveral, Florida
Vessel	R/V Seward Johnson, Johnson Sea Link II Submersible
Science Divers	J Reed (bow), M Nizinski (stern)
External Video Tapes	External Hard Drive
Internal Video Tapes	2 mini DVs
Digital Still Photos	Yes
Positioning System	dGPS
CTD File	<input checked="" type="checkbox"/>
Specimens Collected	<input checked="" type="checkbox"/>
Other	
Acknowledgements	NOAA, USGS, SAFMC, OIMB, NC Museum of Natural Sciences
SEADESC Analyst	M Watts
Date Compiled	2/3/2012
PI Station Number	JSLII-09-Atl-3719

GENERAL LOCATION**Dive Track:****DIVE DATA**

Date	16-Aug-09
Minimum Bottom Depth (m)	691
Maximum Bottom Depth (m)	719
Start Bottom Time (EDT)	8:32
End Bottom End (EDT)	11:02
Starting Latitude (N)	28° 02.200'
Starting Longitude (W)	79° 36.748'
Ending Latitude (N)	28° 02.483'
Ending Longitude (W)	79° 36.873'
Surface Current (Kts)	
Bottom Current (Kts)	

Image A: Mixed Habitat
28° 02.261' N, 79° 36.762' W



DIVE NUMBER: JSLII-3719

STUDY AREA: Cape Canaveral South

IMAGE GALLERY

* indicates image position is approximated

**Image B: Hard Coral -
with Attached Fauna**

28° 02.312' N, 79° 36.816' W

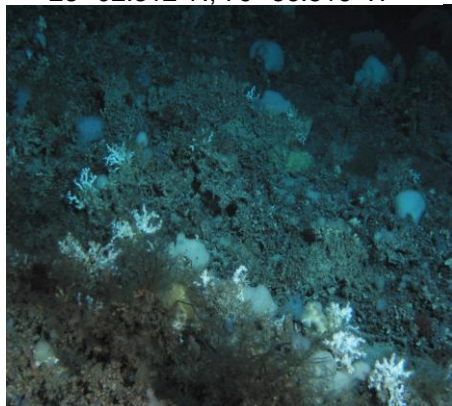
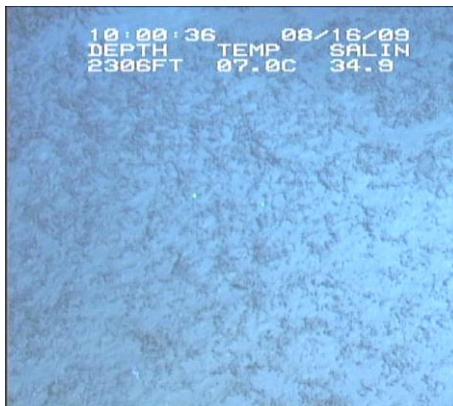


Image C: Rubble

28° 02.402' N, 79° 36.846' W



**Image D: Hard Coral -
with Attached Fauna**

28° 02.434' N, 79° 36.882' W



RELEVANT WORK AND/OR LITERATURE CITED

Ayers and Pilkey (1981)
EEZ-SCAN 87 Scientific Staff (1991)
Reed (2002)
Reed and Ross (2005)
Reed et al. (2006)
Ross and Nizinski (2007)
Ross and Quattrini (2007, 2009)
Ross et al. (2012)

BIOLOGICAL ENVIRONMENT

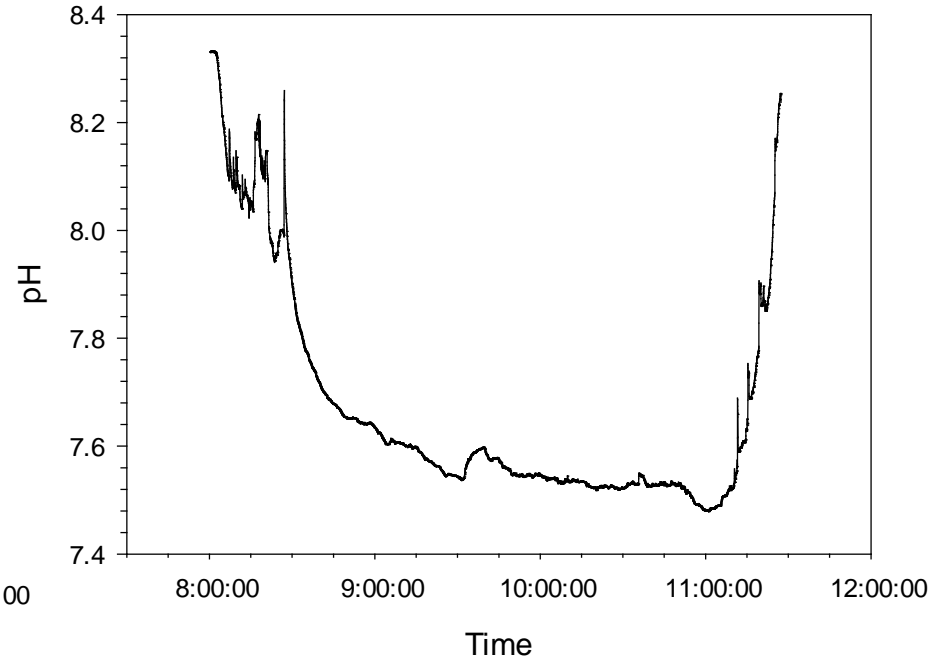
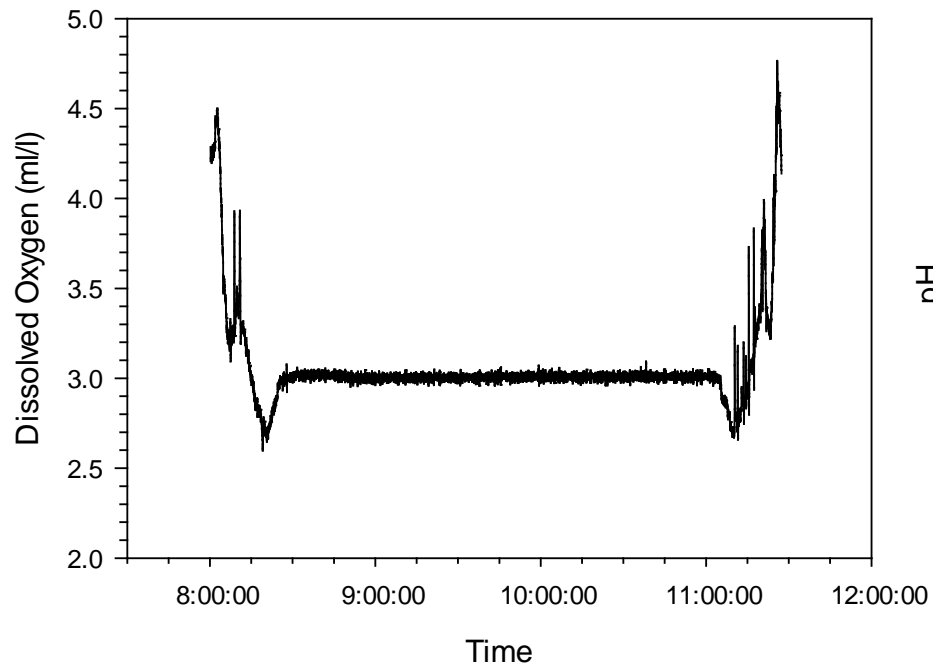
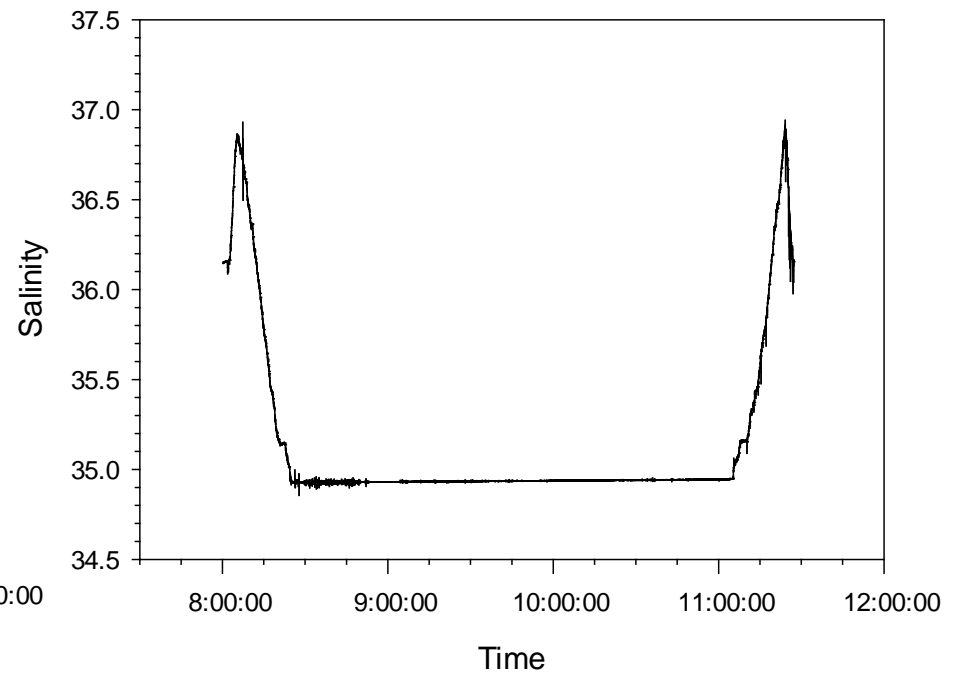
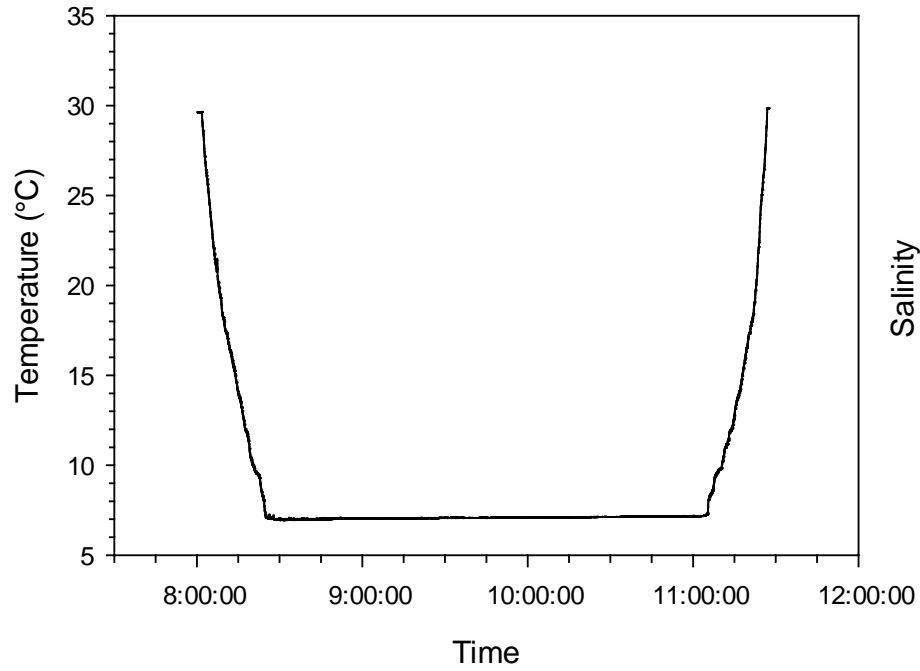
This dive traversed two *Lophelia pertusa* bioherms off Cape Canaveral. The hard coral habitat was comprised of 60-99% dead, variable relief *L. pertusa*. The hard coral and rubble habitats supported abundant attached fauna such as the alcyonacea *Anthomastus* sp., bamboo coral (e.g. *Keratoisis* sp. and *Acanella* sp.), *Paramuricea* sp., hydroids, hydrozoan corals (e.g. Stylasteridae), a huge diversity of demospongia (e.g. *Phakellia* sp. and *Geodia* sp.) and hexactinellid sponges (e.g. *Aphrocallistes* sp., *Hertwigia* sp., and *Farrea* sp.) and a few large patches of the hard coral *Madrepora oculata*. Mobile fauna included cidaroid and echinoid urchins, crinoids, a couple galatheid crabs, synphobranchid eels, a chimaera, a blackbelly rosefish, rattail fish, a red shrimp, and coral hakes.

PHYSICAL ENVIRONMENT

This dive began to the south of two *L. pertusa* bioherms off Cape Canaveral. The submersible conducted a northerly transect through barren, soft sediment habitat mixed with debris and rubble, then transitioned into coral rubble habitat before reaching the base of the first bioherm. The base of the southern bioherm was characterized by mixed habitat with abundant sponge and soft coral communities attached to a dense coral rubble substrate. Coral rubble habitat separated the two bioherms. Coral cover increased from 50% to 100% with elevation up the bioherms. Hard coral habitat on both bioherms ranged from 60-99% dead, low to high relief *L. pertusa* with abundant attached fauna. Each bioherm consisted of a series of coral ridges alternating with small valleys of rubble and soft sediment. There was a huge diversity of sponges attached to both the hard coral and rubble habitats.

ADDITIONAL COMMENTS

Original dives are on mini DVs that were transferred to digital and stored on an external hard drive. Video quality was clear with only brief sections of unuseable footage as the submersible passed over deep valleys. Only a punch core for sediment was taken before the manipulator arm of the submersible broke.



Plots of CTD data recorded during submersible dive JSL-2009-Atl-3719 (16 Aug 2009) off Cape Canaveral, FL.