

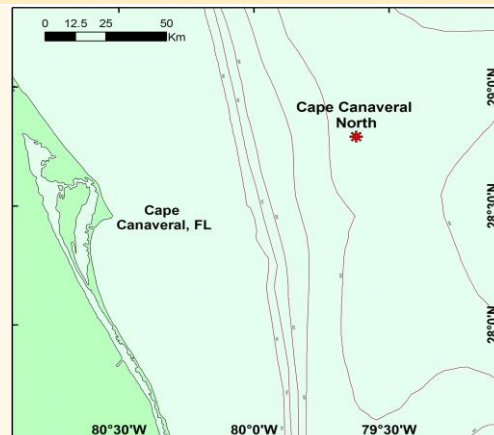
DIVE NUMBER: JSLII-3706

STUDY AREA: Cape Canaveral North

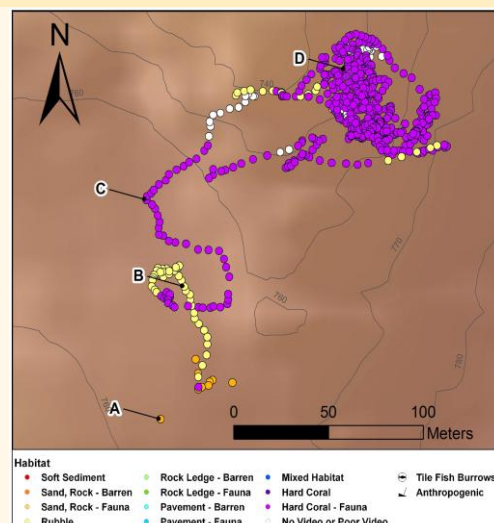
STATION OVERVIEW

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	M Nizinski (bow), S Harter (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	1/6/2012
PI Station Number	JSLII-09-Atl-3706

GENERAL LOCATION



Dive Track:



DIVE DATA

Date	09-Aug-09
Minimum Bottom Depth (m)	728
Maximum Bottom Depth (m)	758
Start Bottom Time (EDT)	17:10
End Bottom End (EDT)	19:05
Starting Latitude (N)	28° 47.421'
Starting Longitude (W)	79° 37.360'
Ending Latitude (N)	28° 47.478'
Ending Longitude (W)	79° 37.334'
Surface Current (Kts)	
Bottom Current (Kts)	

Image A: Sand/Rubble/Rock - with Attached Fauna
28° 47.416' N, 79° 37.362' W



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IMAGE GALLERY

* indicates image position is approximated

Image B: Rubble

28° 47.450' N, 79° 37.350' W

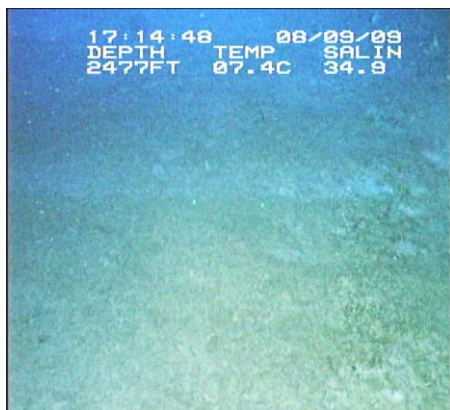


Image C: Hard Corals - with Attached Fauna

28° 47.477' N, 79° 37.368' W

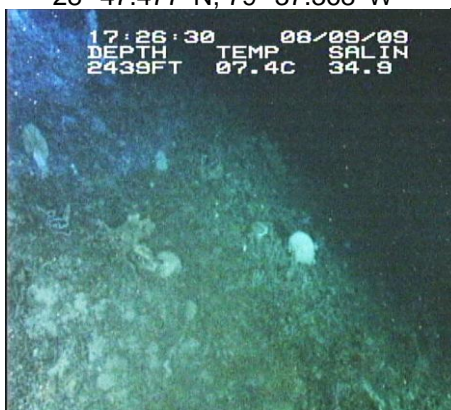
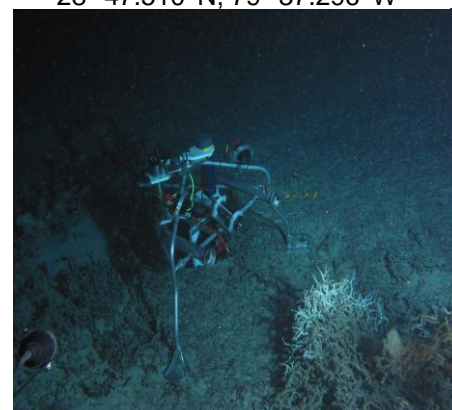


Image D: Hard Corals - with Attached Fauna

28° 47.510' N, 79° 37.296' 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

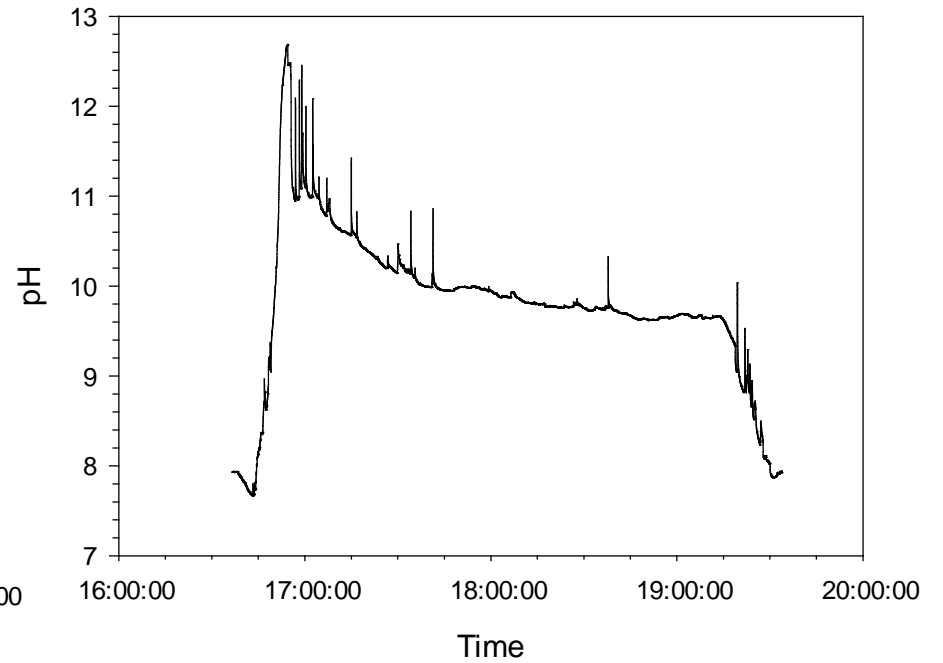
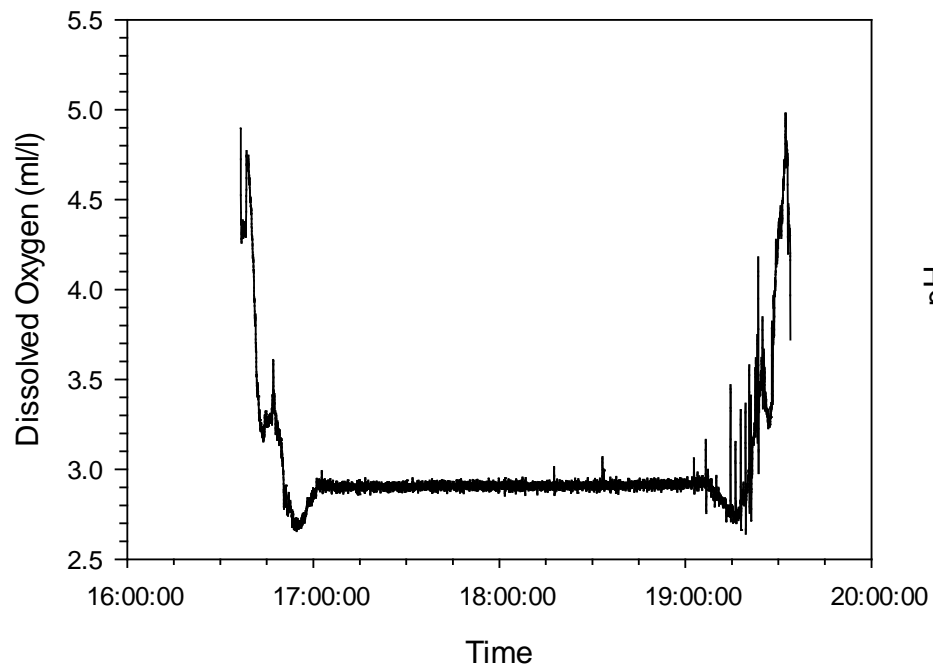
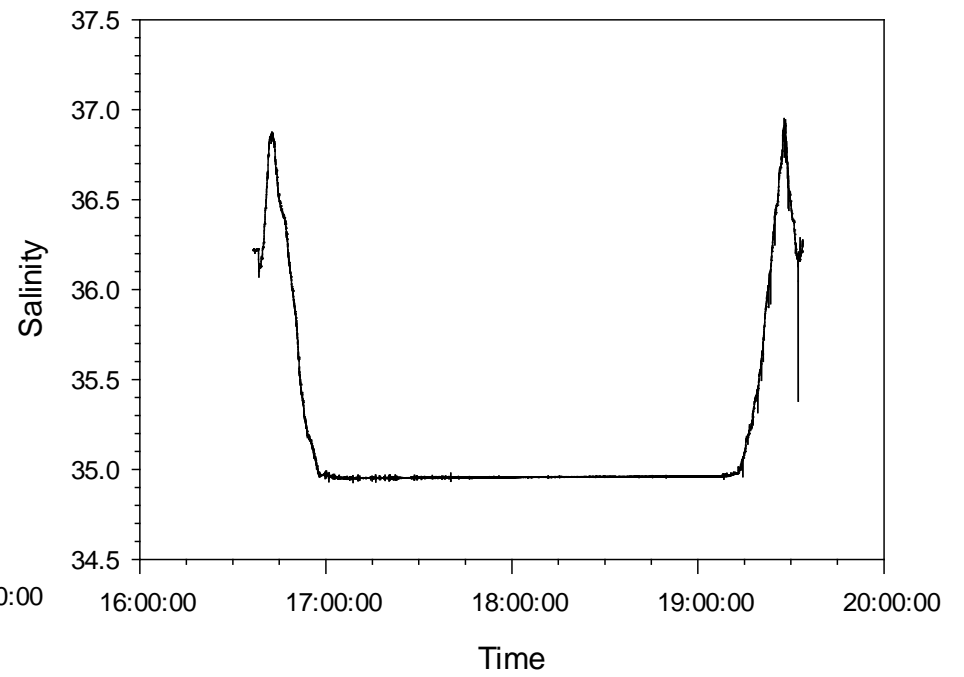
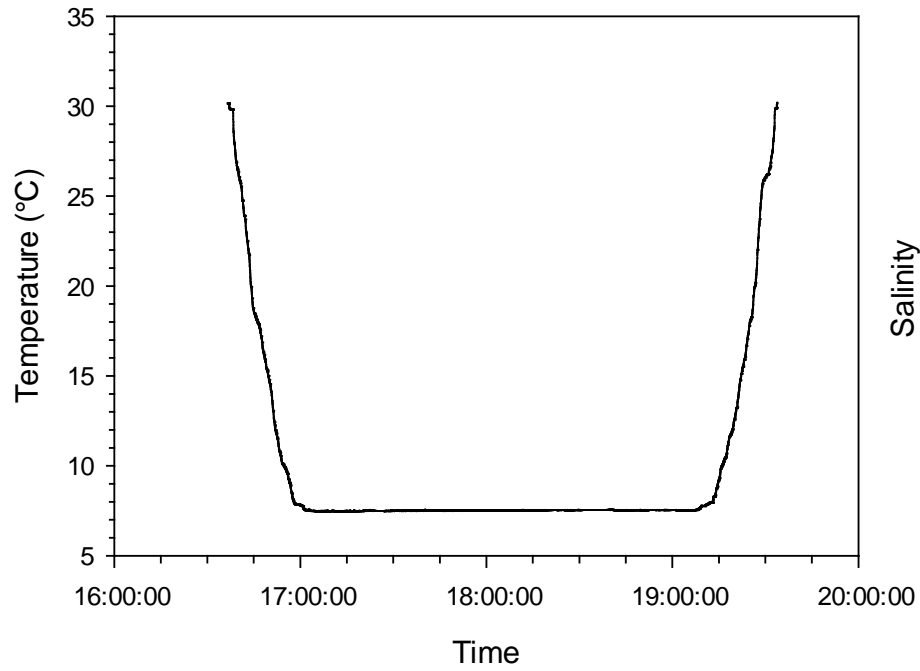
This dive recovered a benthic lander at the northern base of a *Lophelia pertusa* bioherm off Cape Canaveral. The hard coral habitat was comprised of 99% dead, low relief *L. pertusa* and *Enallopsammia profunda*. The hard coral and rubble habitats supported abundant attached fauna such as the alcyonacea *Anthomastus* sp., gorgonians (e.g. *Plumarella* sp.), bamboo coral (e.g. *Keratoisis* sp.), hydroids, hydrozoan corals (e.g. Stylasteridae), a large diversity of hexactinellid sponges (e.g. *Aphrocallistes* sp. and *Hertwigia* sp.), and demospongia sponges, and a small section of the hard coral *Madrepora oculata*. Mobile fauna included cidaroid and echinoid urchins, a seastar, a rattail fish, a chimaera, synphobranchid eels, and a skate.

PHYSICAL ENVIRONMENT

This dive began at the base of a *L. pertusa* bioherm off Cape Canaveral. The submersible conducted a short northeasterly traverse over the bioherm to collect a benthic lander on the north side of the mound. The dive began in soft sediment and rubble and transitioned into coral rubble before reaching hard coral habitat with attached fauna as the submersible moved up the steep slope of the bioherm. Once the submersible found the lander, the majority of the dive was spent collecting around that area. Hard coral habitat consisted of 99% dead, low relief *L. pertusa* and *E. profunda* with occasional tips of live coral. The height of standing coral increased with elevation of the bioherm. Attached sponges and soft corals were very abundant on 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 unclear in the first 30 min. of the dive due to condensation on the external camera lens and sections of the dive were too dark to identify many invertebrates to lower taxonomic levels. The main purpose of the dive was to recover the benthic lander. Additionally, suction samples for sediment were taken at the base of corals along with collections of live and dead *L. pertusa* and *E. profunda*, numerous cidaroid urchins, *Keratoisis* sp., hydrozoan coral (Stylasteridae), pieces of two hexactinellid sponges, a seastar and a skate.



Plots of CTD data recorded during submersible dive JSL-2009-Atl-3706 (9 Aug 2009) off Cape Canaveral, FL.