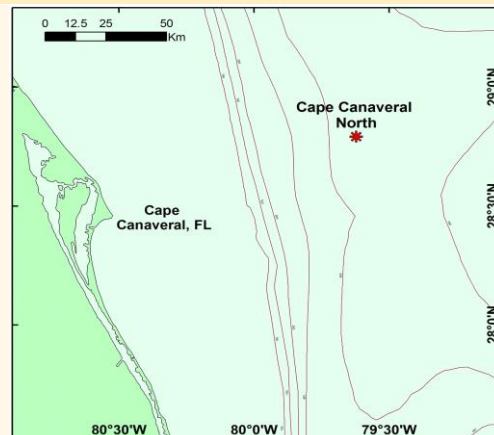
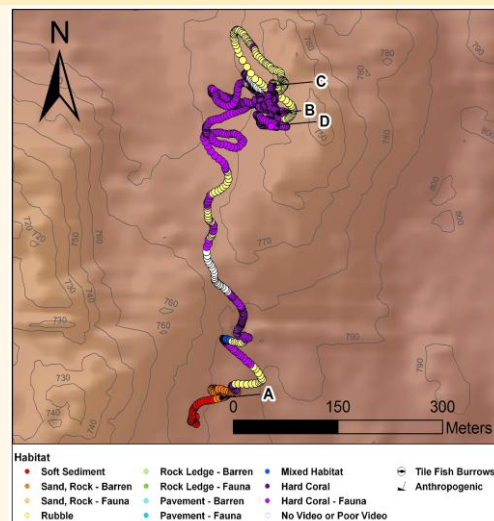


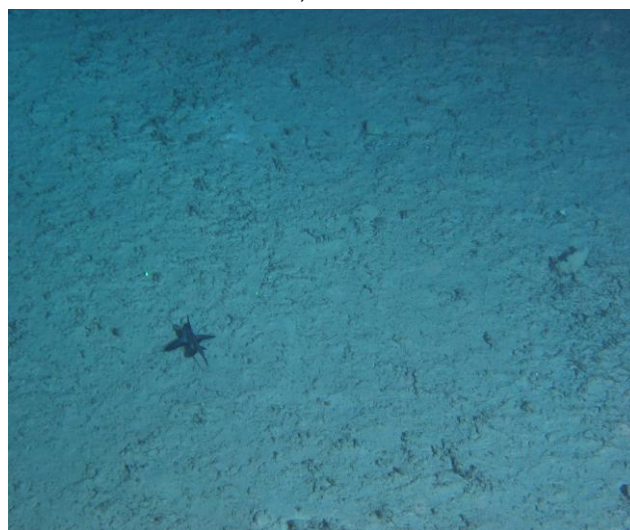
**DIVE NUMBER: JSLII-3705****STUDY AREA: Cape Canaveral North****STATION OVERVIEW**

<b>Project</b>	Deep-sea Coral Research
<b>Principal investigators</b>	SW Ross <sup>1</sup>
<b>PI Contact Info<sup>1</sup></b>	Center for Marine Science, 5600 Marvin Moss Ln., Wilmington, NC 28409
<b>Purpose</b>	Exploration of Deep-water Coral Ecosystems off Cape Canaveral, Florida
<b>Vessel</b>	R/V Seward Johnson, Johnson Sea Link II Submersible
<b>Science Divers</b>	J Galkiewicz (bow), J McClain (stern)
<b>External Video Tapes</b>	External Hard Drive
<b>Internal Video Tapes</b>	3 mini DVs
<b>Digital Still Photos</b>	Yes
<b>Positioning System</b>	dGPS
<b>CTD File</b>	<input checked="" type="checkbox"/>
<b>Specimens Collected</b>	<input checked="" type="checkbox"/>
<b>Other</b>	
<b>Acknowledgements</b>	NOAA, USGS, SAFMC, OIMB, NC Museum of Natural Sciences
<b>SEADESC Analyst</b>	M Watts
<b>Date Compiled</b>	1/4/2012
<b>PI Station Number</b>	JSLII-09-Atl-3705

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

Date	09-Aug-09
Minimum Bottom Depth (m)	743
Maximum Bottom Depth (m)	778
Start Bottom Time (EDT)	8:47
End Bottom End (EDT)	11:08
Starting Latitude (N)	28° 46.306'
Starting Longitude (W)	79° 37.024'
Ending Latitude (N)	28° 46.526'
Ending Longitude (W)	79° 36.955'
Surface Current (Kts)	
Bottom Current (Kts)	

**Image A: Sand/Rubble/Rock - Barren**  
28° 46.326' N, 79° 37.002' W



**DIVE NUMBER: JSLII-3705**

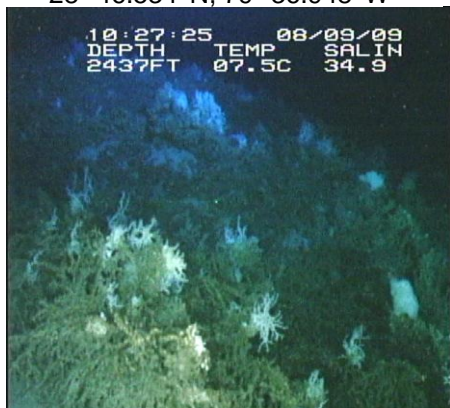
**STUDY AREA: Cape Canaveral North**

**IMAGE GALLERY**

\* indicates image position is approximated

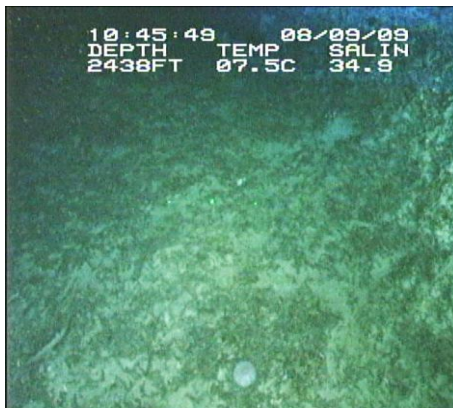
**Image B: Hard Corals -  
with Attached Fauna**

28° 46.534' N, 79° 36.948' W



**Image C: Rubble**

28° 46.556' N, 79° 36.954' W



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

28° 46.526' N, 79° 36.948' 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**

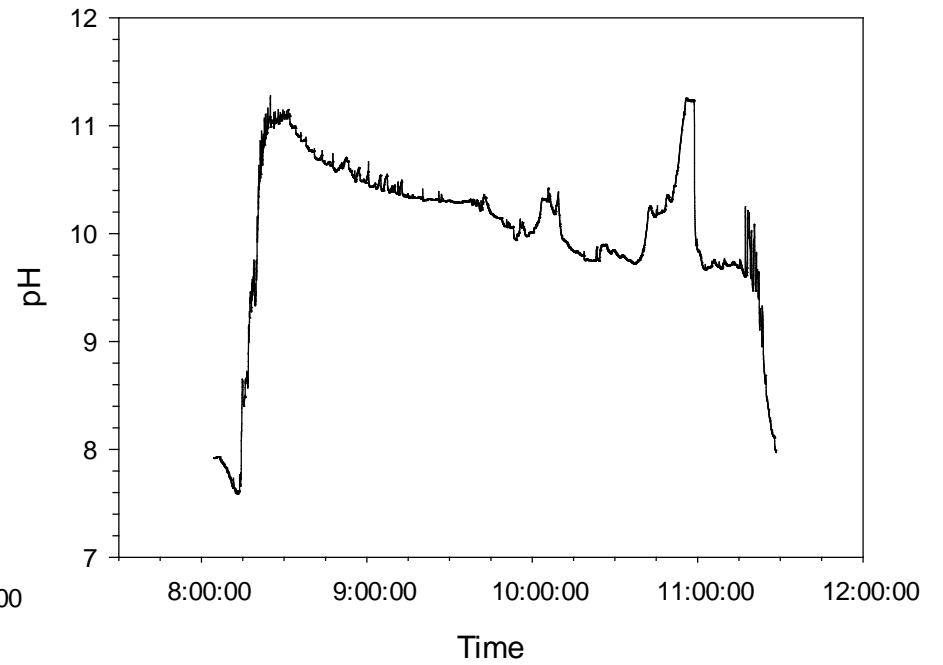
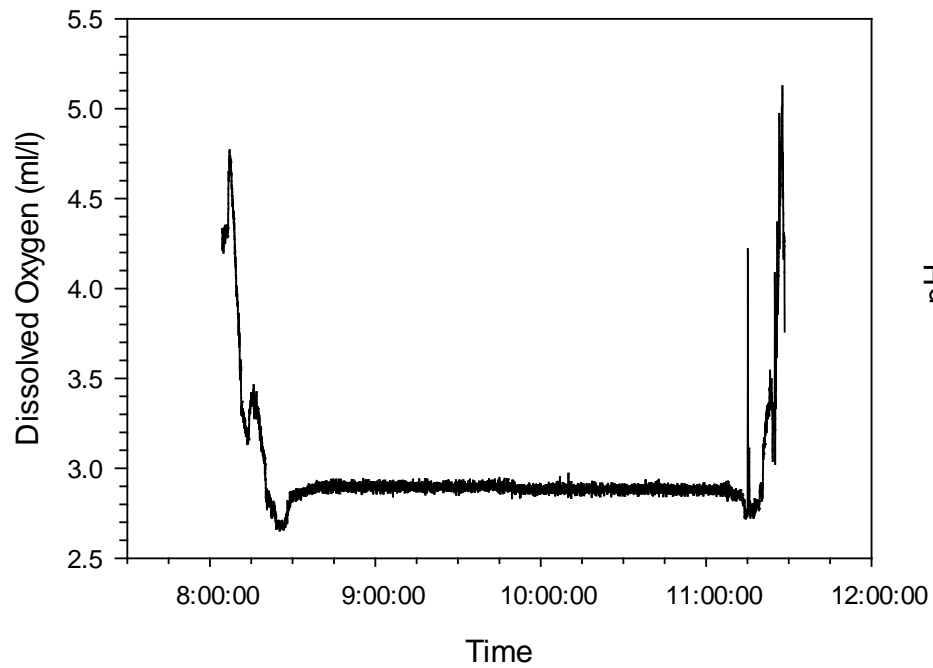
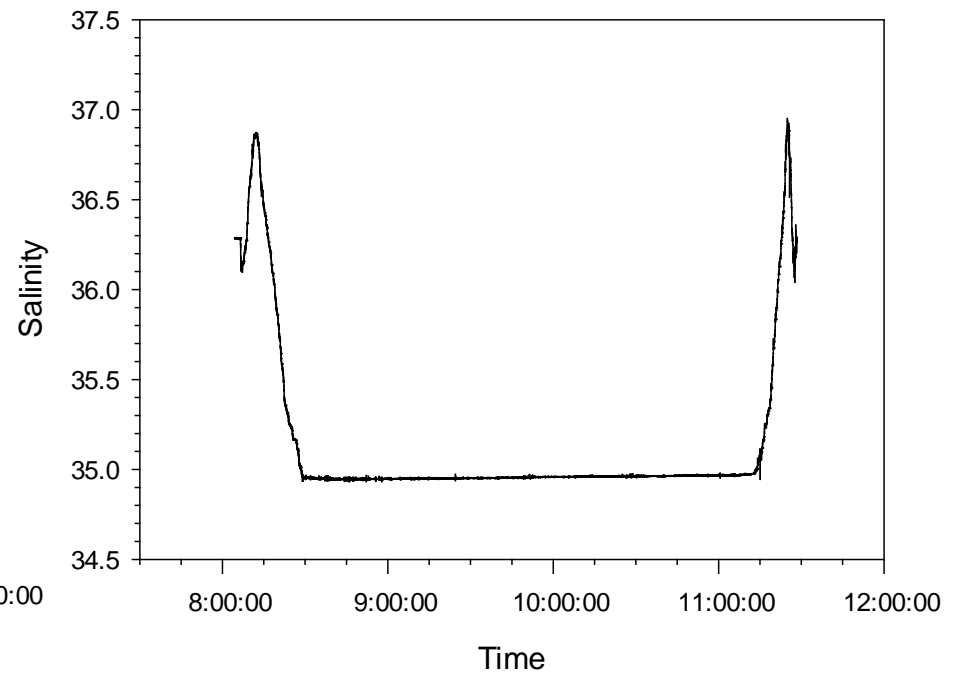
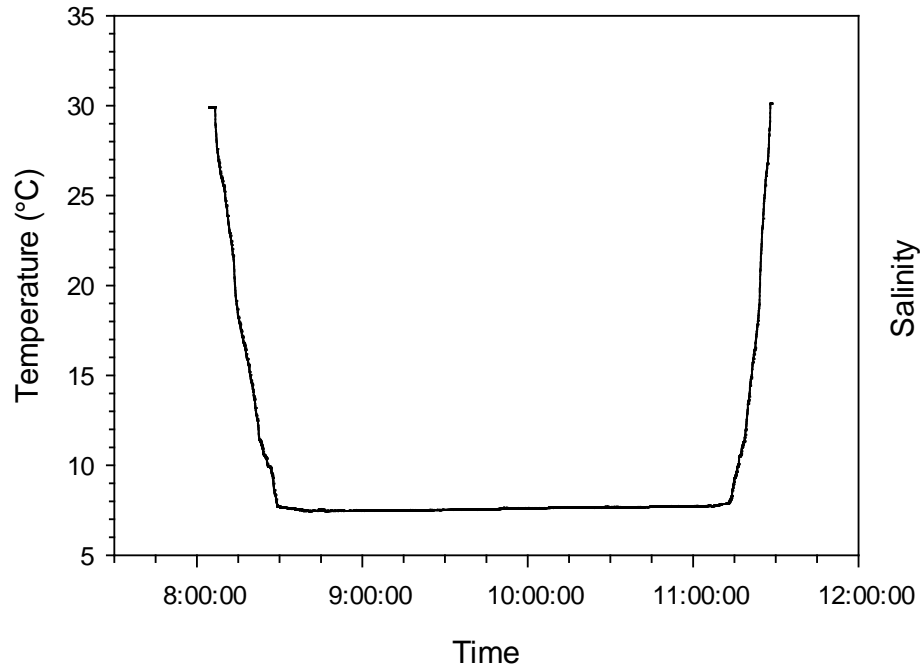
This dive explored a *Lophelia pertusa* bioherm off Cape Canaveral. The hard coral habitat was comprised of 99% dead, low relief *L. pertusa*. The hard coral and rubble habitats supported abundant attached fauna such as the alcyonacea *Anthomastus* sp., gorgonians (e.g. *Plumarella* sp.), bamboo coral (e.g. *Keratoisis* sp.), anemones, hydroids, a large diversity of hexactinellid sponges (e.g. *Hertwigia* sp.) and demospongia sponges, and a patch of the hard coral *Madrepora oculata*. Mobile fauna included cidaroid and echinoid urchins, chimaeras and synphobranchid eels.

**PHYSICAL ENVIRONMENT**

This dive began south of a *L. pertusa* bioherm off Cape Canaveral, requiring a northerly traverse over first soft sediment, then soft sediment and rubble, then coral rubble before reaching hard coral habitat with attached fauna. The feature consisted of a series of coral ridge spurs separated by grooves of rubble and soft sediment. Hard coral habitat consisted of 99% dead, low relief *L. pertusa* with occasional tips of live coral. The height of standing coral and the percentage of live distal tips increased with elevation of the bioherm at the northern extent of the dive. Rubble habitat comprised the steep north slope 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 mostly clear though large portions of transects were dark with lots of debris in the water making the visibility too poor to identify many invertebrates to lower taxonomic levels. Suction samples for sediment were taken at the base of corals along with collections of live and dead *L. pertusa*, an anemone, and a piece of a hexactinellid sponge.



Plots of CTD data recorded during submersible dive JSL-2009-Atl-3705 (9 Aug 2009) off Cape Canaveral, FL.