

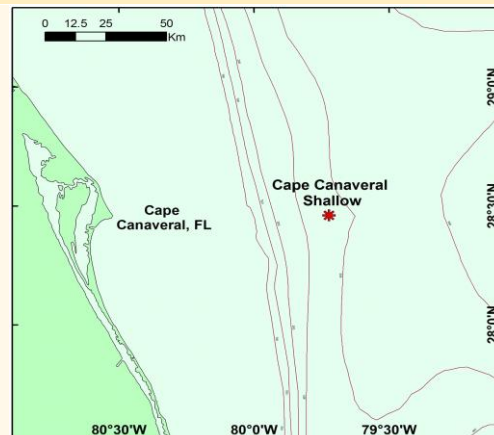
**DIVE NUMBER: JSLII-3713**

**STUDY AREA: Cape Canaveral Shallow**

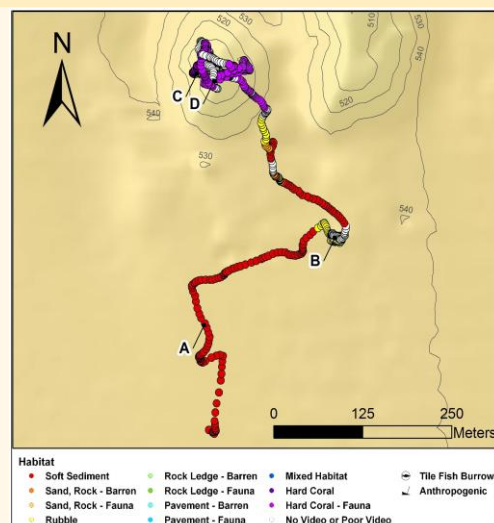
**STATION OVERVIEW**

<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 Roberts (bow), A Demopoulos (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>	1/20/2012
<b>PI Station Number</b>	JSLII-09-Atl-3713

**GENERAL LOCATION**



**Dive Track:**



**DIVE DATA**

Date	13-Aug-09
Minimum Bottom Depth (m)	499
Maximum Bottom Depth (m)	532
Start Bottom Time (EDT)	8:36
End Bottom End (EDT)	11:23
Starting Latitude (N)	28° 27.254'
Starting Longitude (W)	79° 43.410'
Ending Latitude (N)	28° 27.520'
Ending Longitude (W)	79° 43.392'
Surface Current (Kts)	
Bottom Current (Kts)	

**Image A: Soft Substrate**  
28° 27.329' N, 79° 43.404' W



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### IMAGE GALLERY

\* indicates image position is approximated

Image B: Rubble

28° 27.394' N, 79° 43.302' W



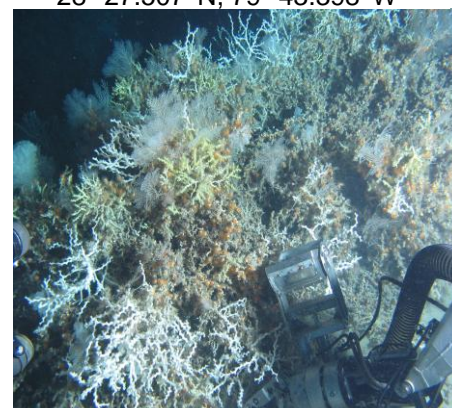
Image C: Hard Coral -  
without Attached Fauna

28° 27.514' N, 79° 43.416' W



Image D: Hard Coral -  
with Attached Fauna

28° 27.507' N, 79° 43.398' 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

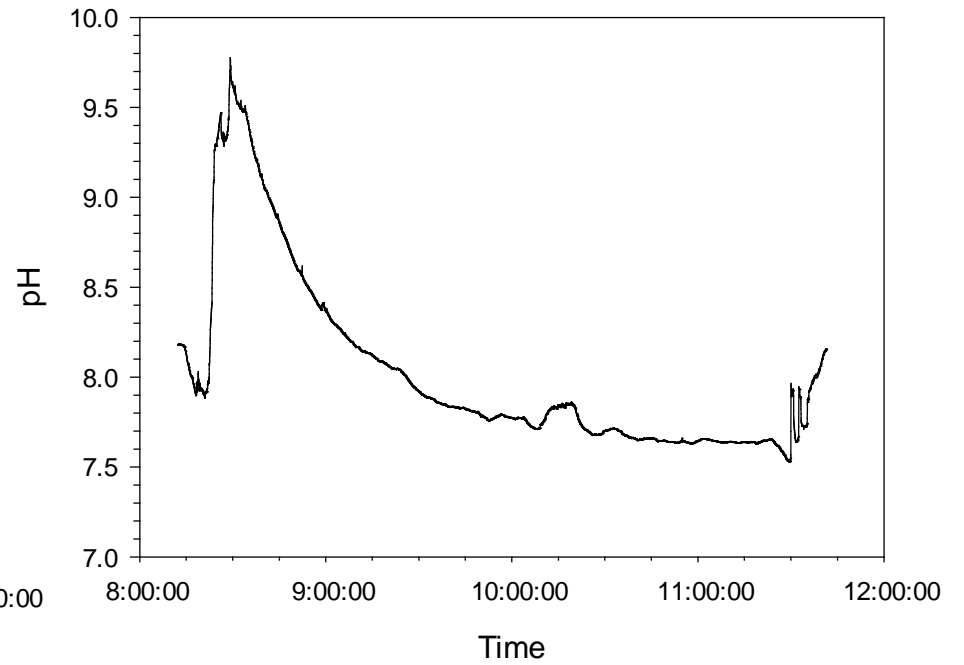
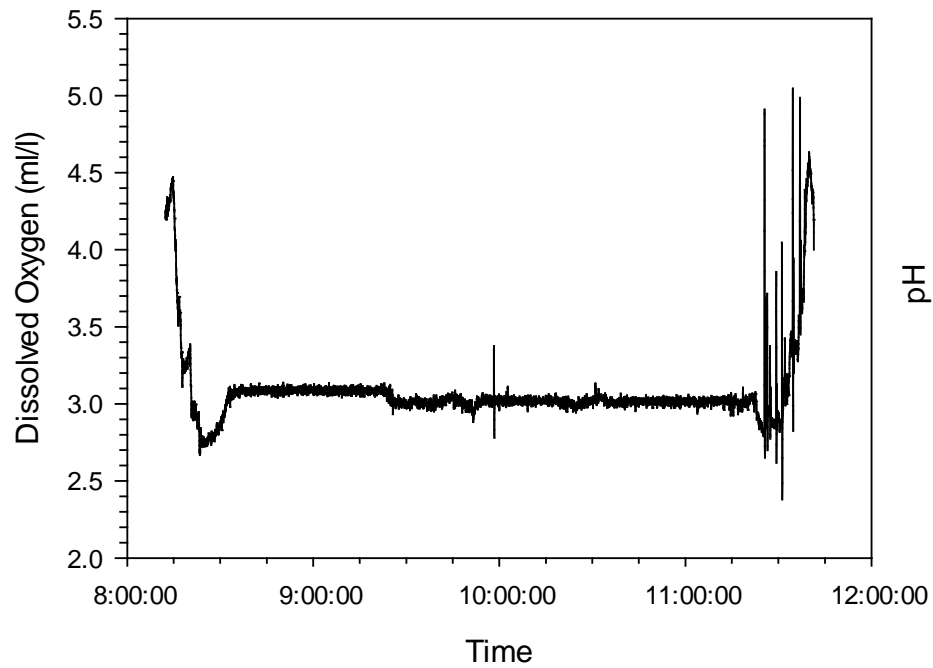
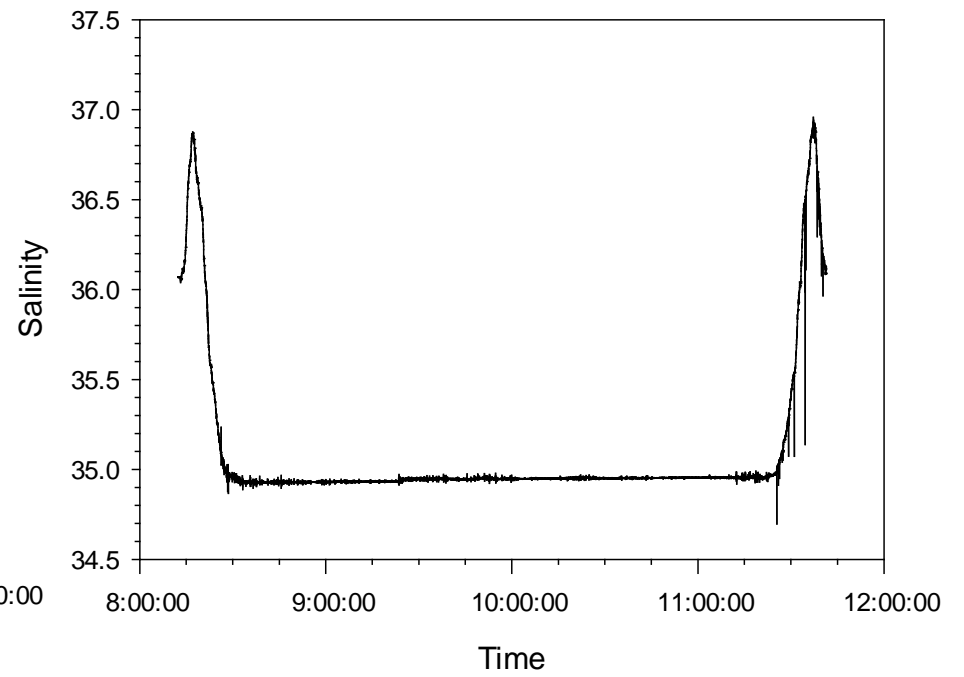
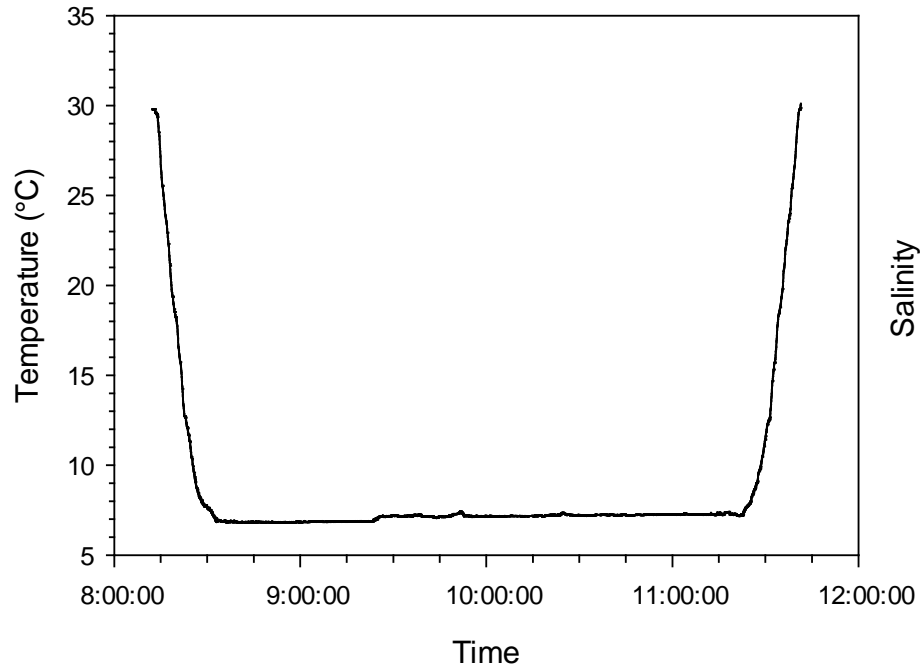
This dive traversed a large *Lophelia pertusa* bioherm off Cape Canaveral. The bioherm was comprised of very dense, high relief, live *L. pertusa* on a dead coral matrix. The hard coral often supported abundant attached fauna such as cup corals, anemones, gorgonians (e.g. *Plumarella* sp.), hydroids, hexactinellid sponges (e.g. *Aphrocallistes* sp. with and without yellow zooanthids), and frequent, large patches of the hard coral *Enallopsammia profunda*. Mobile fauna included a swimming sea cucumber, echinoid and cidaroid urchins, crinoids, golden and galatheid crabs, an octopus, rattail fish, scorpionfish, coral hakes, and a *Scylliorhinus meadi*.

### PHYSICAL ENVIRONMENT

This dive began south of a large *L. pertusa* bioherm, requiring a 300 m northerly traverse to reach the base of the bioherm. This traverse extended over soft sediment with patches of soft sediment and coral rubble without fauna, then coral rubble at the base of the bioherm. At the base of the bioherm the slope increased and the habitat quickly transitioned into hard coral habitat with and without attached fauna. Hard coral habitat consisted of extensive, very high relief, 75-90% live, densely packed hard coral thickets that were oriented in walls perpendicular to the current. This site contained some of the healthiest and most extensive *L. pertusa* habitat off the Cape Canaveral area.

### ADDITIONAL COMMENTS

Original dives are on mini DVs that were transferred to digital and stored on an external hard drive. Video quality was overall too dark with frequent periods when the submersible was too far off the bottom or without enough light to identify invertebrates. The submersible deployed a mini benthic lander for photo work. The JSL external camera was shut off for 45 min. while the lander was deployed. Suction samples for sediment were taken along with collections of live *L. pertusa*, cup corals, *Plumerella* sp., a golden and a galatheid crab, an echinoid urchin, a crinoid, a scorpionfish, and an *Aphrocallistes* sp. covered in yellow zooanthids.



Plots of CTD data recorded during submersible dive JSL-2009-Atl-3713 (13 Aug 2009) off Cape Canaveral, FL.