# DIVE NUMBER: JSLII-3717

# STATION OVERVIEW

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Project	Deep-sea Coral Research
Principal investigators	SW Ross <sup>1</sup>
PI Contact Info <sup>1</sup>	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	S Ross (bow), A Demopoulos (stern)
External Video Tapes	External Hard Drive
Internal Video Tapes	2 mini DVs
Digital Still Photos	Yes
Positioning System	dGPS
CTD File	$\checkmark$
Specimens Collected	
Other	
Acknowledgements	NOAA, USGS, SAFMC, OIMB, NC Museum of Natural Sciences
SEADESC Analyst	M Watts
Date Compiled	1/31/2012
PI Station Number	JSLII-09-Atl-3717

# STUDY AREA: Cape Canaveral South







## **DIVE DATA**

Date	15-Aug-09
Minimum Bottom Depth (m)	737
Maximum Bottom Depth (m)	746
Start Bottom Time (EDT)	8:42
End Bottom End (EDT)	10:45
Starting Latitude (N)	28° 09.547'
Starting Longitude (W)	79° 36.782'
Ending Latitude (N)	28° 09.682'
Ending Longitude (W)	79° 36.789'
Surface Current (Kts)	
Bottom Current (Kts)	

Image A: Sand/Rubble/Rock -Barren 28° 09.545' N, 79° 36.762' W



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### **IMAGE GALLERY**

Image B: Rubble 28° 09.649' N, 79° 36.810' W \* indicates image position is approximated

Image C: Soft Substrate 28° 09.822' N, 79° 36.738' W Image D: Hard Coral with Attached Fauna 28° 09.700' N. 79° 36.786' 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 mostly soft sediment, rubble, and barren soft sediment mixed with small rocks and debris with a small region of low elevation *Lophelia pertusa* habitat off Cape Canaveral. The hard coral habitat was comprised of 99% dead, low to medium relief *L. pertusa*. The hard coral and soft sediment habitats supported abundant attached fauna such as hydroids, a diversity of hexactinellid sponges (e.g. *Aphrocallistes* sp., *Farrea* sp., and euplectellid species) and demospongia sponges including an unidentified blue sponge and a few sprigs of small hydrozoan corals (e.g. Stylasteridae). Mobile fauna included echinoid urchins, golden crabs, shrimp, rattail fish, synaphobranchid eels, and skates.

#### PHYSICAL ENVIRONMENT

This dive began 300 meters south of a low elevation *L. pertusa* area off Cape Canaveral. The submersible conducted a circuitous traverse over soft sediment, barren soft sediment with small rocks and coral rubble habitat both before and after exploring a small, flat hard coral habitat with attached fauna. The coral habitat consisted of low to medium relief, 99% dead *L. pertusa* interspersed with patches of soft sediment.

#### **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 brief sections of video too dark to discern habitat type. Suction samples and punch cores for sediment were taken along with collections of dead *L. pertusa*, a skate, and a synaphobranchid eel.



Plots of CTD data recorded during submersible dive JSL-2009-Atl-3717 (15 Aug 2009) off Cape Canaveral, FL.