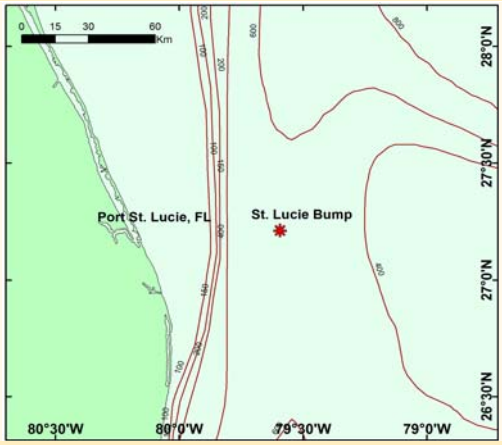
DIVE NUMBER: JSLII-3583 *STUDY AREA: St. Lucie Bump*

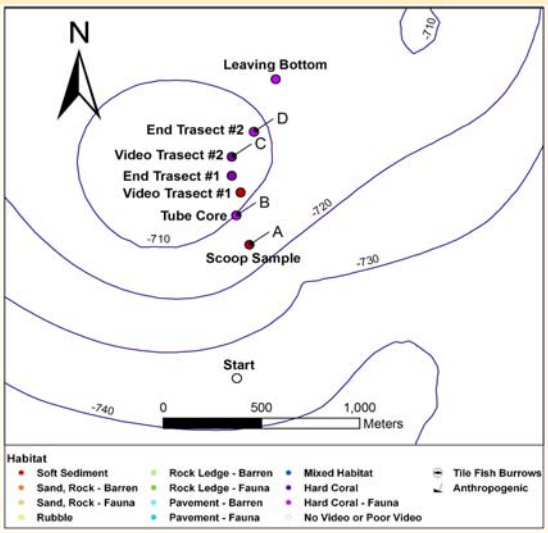
STATION OVERVIEW

Project	Ocean Exploration Deep Coral Expedition
Principal investigators	C Messing[1] SD Brooke, J Reed
PI Contact Info[1]	Nova Southeastern University, Oceanographic Center, 8000 N Ocean Drive, Dania Beach, FL 33004
Purpose	Exploration and characterization of deep sea coral habitats off the east coast of Florida
Vessel	R/V Seward Johnson, Johnson Sea Link II Submersible
Science Divers	S Brooke (bow), K Shirus (stern)
External Video Tapes	External Hard Drive
Internal Video Tapes	3 mini DVs
Digital Still Photos	
Positioning System	dGPS
CTD File	☐
Specimens Collected	☑
Other	
Acknowledgements	NOAA-OE
SEADESC Analyst	M Watts
Date Compiled	8/18/2011
PI Station Number	28-V-07-1

GENERAL LOCATION



Dive Track:



DIVE DATA

Date	28-May-07
Minimum Bottom Depth (m)	683
Maximum Bottom Depth (m)	751
Start Bottom Time (EDT)	17:00
End Bottom End (EDT)	18:37
Starting Latitude (N)	27° 11.930'
Starting Longitude (W)	79° 35.687'
Ending Latitude (N)	27° 12.788'
Ending Longitude (W)	79° 35.597'
Surface Current (Kts)	
Bottom Current (Kts)	0.4

Image A: Soft Substrate
27° 12.310' N, 79° 35.653' W

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IMAGE GALLERY *** indicates image position is approximated**

Image B: Hard Corals - with Attached Fauna
27° 12.398' N, 79° 35.687' W

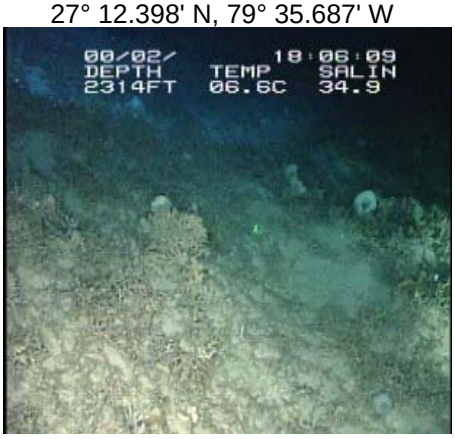


Image C: Hard Corals - without Attached Fauna
27° 12.567' N, 79° 35.697' W

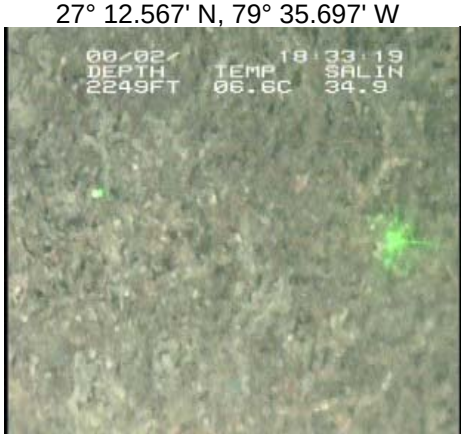
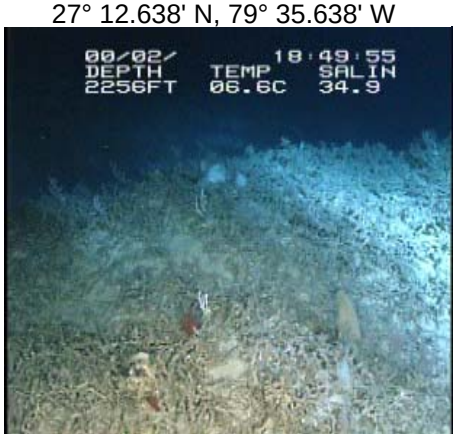


Image D: Hard Corals - with Attached Fauna
27° 12.638' N, 79° 35.638' W



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)

BIOLOGICAL ENVIRONMENT

The habitat of interest at St. Lucie Bump consisted of low to high relief coral mounds comprised of 99% dead *Lophelia pertusa* matrix with occasional live tips. The hard coral rubble and matrix habitats supported abundant attached fauna such as small hydrozoan corals (Stylasteridae), gorgonians (e.g. *Acanella* sp.), bamboo coral, *Anthomastus* sp., and a huge diversity of both hexactinellid and demospongia sponges. Mobile fauna included cidaroid and echinoid urchins, crinoids, eels, scorpionfish, rattail and coral hake. Soft sediments and rubble surrounding and leading up to the mounds often had stalked hexactinellid sponges with and without zooanthids as well as numerous sea cucumbers, urchins and a skate.

PHYSICAL ENVIRONMENT

This dive begin 700m west of the waypoint 7, requiring a easterly traverse over soft sediment often mixed with coral rubble before turning north to head to the main coral feature and other waypoints. Before reaching the target coral mound (waypoint 4) the sub passed through three small regions of low relief 100% dead coral rubble covered with abundant mixed fauna and interspersed with soft sediment. The main coral lithoherm was surrounded by coral rubble and the center comprised of 99% dead *L. pertusa* matrices and abundant attached fauna with patches of soft sediment.

ADDITIONAL COMMENTS

Original dives are on mini DVs transfered to digital on a mini DV reader and stored on an external hard. Video quality was mostly clear with a few sections of unusable footage. CTD and navigation data for this JSL dive are missing. Therefore, only fixes taken during the dive and recorded in dive logs are shown on the dive track map with pictures taken at those fixes. Sediment cores were taken. Collections were taken of live and dead *L. pertusa,* Geodiidae and *Polymastia* sp. sponge, and attempted for a chimera.