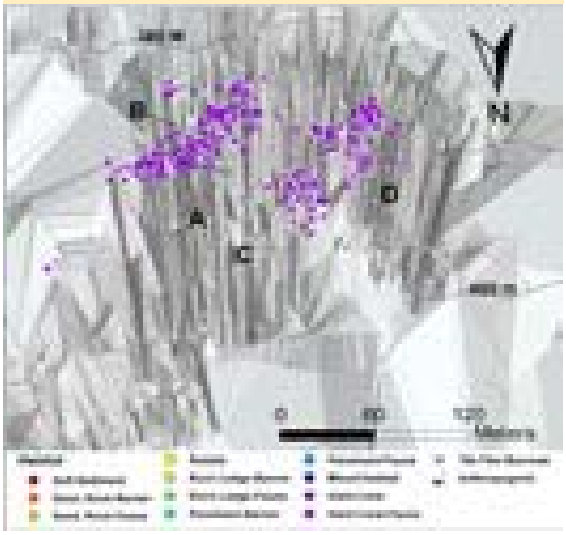
DIVE NUMBER: JSLII-3306 *STUDY AREA: Cape Lookout Lophelia A*

STATION OVERVIEW

Project	Islands in the Stream 2002
Principal investigators	SW Ross[1] KJ Sulak, E Baird
PI Contact Info[1]	Center for Marine Science, 5600 Marvin Moss Ln., Wilmington, NC 28409
Purpose	Mapping of deep coral banks, ecological studies of macroinvertebrates and fishes, and educational outreach
Vessel	R/V Seward Johnson, Johnson Sea Link II Submersible
Science Divers	KJ Sulak (bow), A Felker (stern)
External Video Tapes	3 mini DVs
Internal Video Tapes	3 mini DVs
Digital Still Photos	0
Positioning System	dGPS
CTD File	☑
Specimens Collected	☑
Other	Hard copies of bow and stern audio logs
Acknowledgements	NOAA-OE, USGS, UNCW, NC Coastal Reserve, NC Museum of Natural Sciences
SEADESC Analyst	AM Necaise, ML Partyka
Date Compiled	11/16/2006

GENERAL LOCATION

Dive Track:



DIVE DATA

Date	12-Aug-02
Minimum Bottom Depth (m)	381
Maximum Bottom Depth (m)	418
Start Bottom Time (EDT)	8:32
End Bottom End (EDT)	10:59
Starting Latitude (N)	34° 19.400'
Starting Longitude (W)	75° 47.200'
Ending Latitude (N)	34° 19.452'
Ending Longitude (W)	75° 47.251'
Surface Current (Kts)	
Bottom Current (Kts)	

Image A: Hard Coral
34° 19.476' N, 75° 47.196' W

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IMAGE GALLERY

*** indicates image position is approximated**

Image B: Hard Coral
34° 19.464' N, 75° 47.208' W

Image C: Hard Coral
34° 19.482' N, 75° 47.238' W

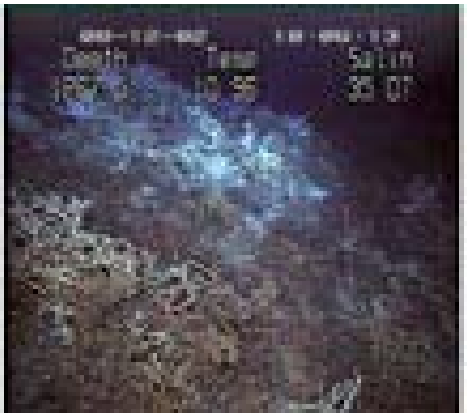

Image D: Hard Coral
34° 19.476' N, 75° 47.226' W

RELEVANT WORK AND/OR LITERATURE CITED

Uchupi (1967)
R/V Eastward training cruise 1966 (photo in Rowe and Menzies 1968 and Menzies et al. 1973)
NR-1 submersible cruise Nov 1993 (Sulak and Ross unpubl. data)
R/V Cape Hatteras cruises Aug 2001 & Sep 2006 (S.W. Ross, unpubl. data)
EEZ-SCAN 87 Scientific Staff (1991)
Reed and Ross (2005)
Ross and Nizinski (in press)

BIOLOGICAL ENVIRONMENT

An almost equal number of fishes were observed over the sandy rubble strewn area at the base of the mound as were seen on the main reef itself, though the species composition was much different. *Laemonema barbatulum* and *Helicolenus dactylopterus* were seen in moderate numbers over the rubble habitat surrounding the main reef, while *Merluccius albidus* and *Maurolicus weitzmani* were seen sparsely over sand habitat. The most common species found on the reef were *Hoplostethus occidentalis, L. barbatulum* and *L. melanurum*. Less frequently observed species included *Conger oceanicus*, *Helicolenus dactylopterus* and other scorpaenids. *Eumunida picta* were found in large numbers over the reef and the surrounding rubble; and next to brittle stars, they were the dominant mobile invertebrates in the area. A few *Rochinia crassa*, pencil and spiny urchins were also observed. Basket stars and hexactinellid sponges were the only sessile invertebrates seen, aside from the living growths of *Lophelia pertusa.*

PHYSICAL ENVIRONMENT

This dive reached bottom over a large, rippled sandflat that transitioned into rubble and eventually a dense dead matrix of cemented hard coral rubble. This latter habitat first appeared at the base of a steep slope (~70°) and was prevalent all across the slope, eventually leading to dense *Lophelia* bushes near the apex of the mound. Overall, there was little live *Lophelia* found in the area (<15%), and the bushes were heavily cemented with few large interstices. Spaces between the coral bushes were typically a mixture of sand and coral rubble.

ADDITIONAL COMMENTS

This dive was captured on 3 mini DVs and archived on 3 DVDs. There was a substance on the internal lens of the camera that obscured the view. Footage shot while stationary was often very shaky and out of focus. The first 30 minutes of bottom time were not included in the dive track.