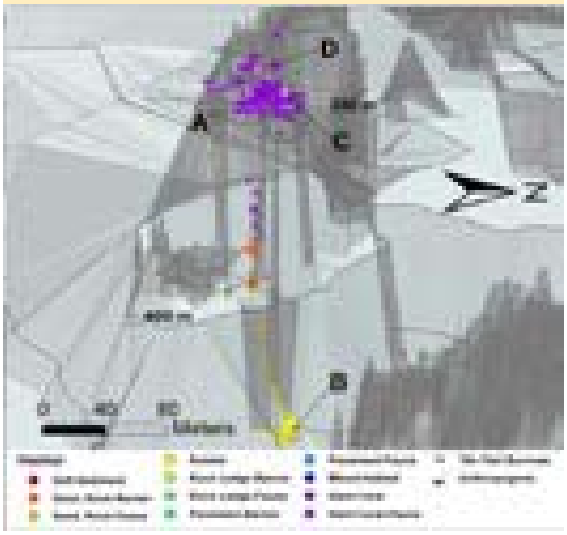
DIVE NUMBER: JSLI-4363 *STUDY AREA: Cape Lookout Lophelia A*

STATION OVERVIEW

Project	Islands in the Stream 2001
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	Continued trophodynamic studies off North Carolina; mapping of deep coral banks and ecological studies of macroinvertebrates and fishes; educational outreach
Vessel	R/V Seward Johnson, Johnson Sea Link I Submersible
Science Divers	SW Ross (bow), F Rohde (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 audio log
Acknowledgements	NOAA-OE, USGS, UNCW, NC Coastal Reserve, NC Museum of Natural Sciences
SEADESC Analyst	AM Necaise, AM Quattrini, ML Partyka
Date Compiled	11/16/2006

GENERAL LOCATION

Dive Track:



DIVE DATA

Date	23-Sep-01
Minimum Bottom Depth (m)	370
Maximum Bottom Depth (m)	417
Start Bottom Time (EDT)	8:30
End Bottom End (EDT)	11:15
Starting Latitude (N)	34° 19.423'
Starting Longitude (W)	75° 47.453'
Ending Latitude (N)	34° 19.412'
Ending Longitude (W)	75° 47.497'
Surface Current (Kts)	
Bottom Current (Kts)	

Image A: Hard Coral
34° 19.404' N, 75° 47.502' W

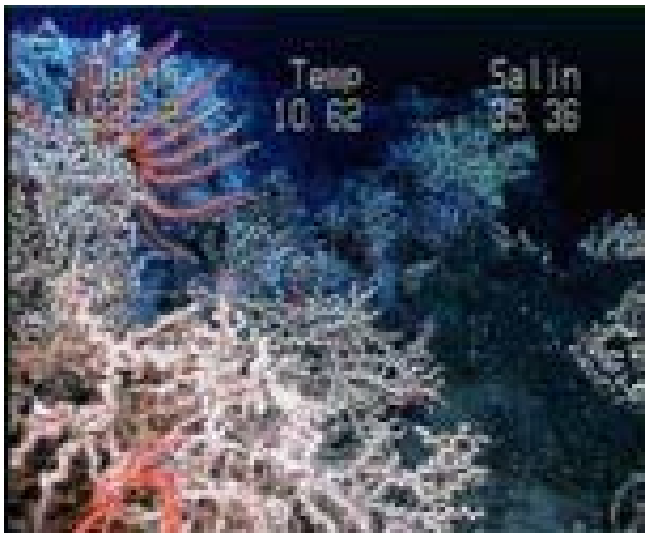


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IMAGE GALLERY *** indicates image position is approximated**

Image B: Rubble
34° 19.386' N, 75° 47.436' W

Image C: Hard Coral
34° 19.398' N, 75° 47.466' W

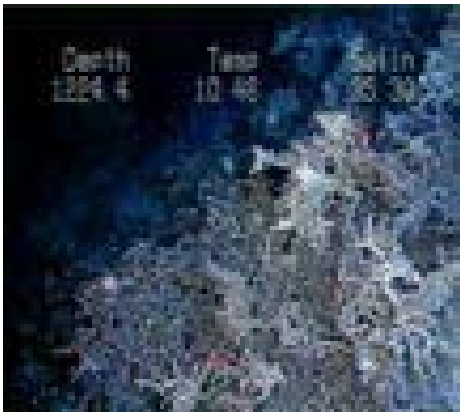

Image D: Hard Coral-Fauna
34° 19.410' N, 75° 47.508' W

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

Video analysis of this dive began in mid-water with the identification of hundreds of myctophids and *Polyipnus clarus*, many of which were still visible just off of the bottom. *Laemonema barbatulum, L. melanurum, Scyliorhinus retifer* and *Nezumia* spp. were observed over the rubble field leading up to the main reef. The majority of the dive took place over dense *Lophelia pertusa* reef comprised of mostly dead coral mounds with a varying degree of live growth on the outer edges (~10%). Few fishes were observed during this dive, the most common species over the reef were *Laemonema melanurum, Helicolenus dactylopterus* and *Hoplostethus occidentalis*. Other species included *Conger oceanicus, Anthias woodsi,* and *Nettenchelys exoria*. *Eumunida picta*, spiny and pencil urchins, and brittle stars were the most common mobile invertebrates. Sessile invertebrates were sparse over much of the reef, though some small sponges, flytrap anemones and basket stars were scattered throughout the dive.

PHYSICAL ENVIRONMENT

Four habitats were encountered in varying degrees during this dive. This dive began over a relatively flat rubble field that graded into a dense dead coral matrix of cemented rubble and small patches of live *Lophelia*. The dive track continued up a steep (70-80°) slope leading to the top of a mound covered in dense, high-relief *Lophelia* bushes. This upper-most reef area was made up of a series of peaks and valleys with periodic sandy patches in between bushes. The majority of the dive was spent over hard coral habitat without attached fauna, but a brief period was spent over hard coral covered with dense colonies of orange anemones (Image D).

ADDITIONAL COMMENTS

This dive is contained on 3 mini DVs, both of which were of moderate to good quality with no time or CTD overlay. The mini DVs were archived on separate DVDs. The sub remained in the vicinity of a crab trap for the majority of the dive and there is good footage of numerous *E. picta* surrounding the trap.