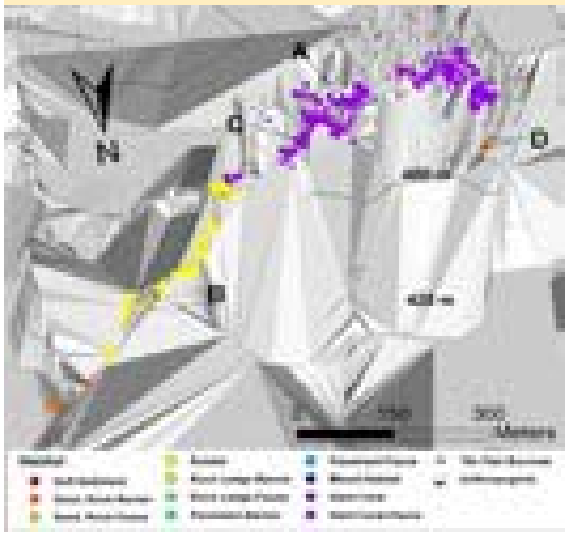
DIVE NUMBER: JSLII-3304 *STUDY AREA: Cape Lookout Lophelia A*

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	A Howard (bow), KJ Sulak (stern)
External Video Tapes	3 mini DVs
Internal Video Tapes	0
Digital Still Photos	0
Positioning System	dGPS
CTD File	☑
Specimens Collected	☑
Other	No bow audio log, copy of stern audio log
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	11-Aug-02
Minimum Bottom Depth (m)	382
Maximum Bottom Depth (m)	448
Start Bottom Time (EDT)	8:33
End Bottom End (EDT)	11:00
Starting Latitude (N)	34° 19.710'
Starting Longitude (W)	75° 47.043'
Ending Latitude (N)	34° 19.510'
Ending Longitude (W)	75° 46.207'
Surface Current (Kts)	
Bottom Current (Kts)	

Image A: Hard Coral
34° 19.494' N, 75° 47.220' W

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

Image B: Rubble
34° 19.626' N, 75° 47.112' W

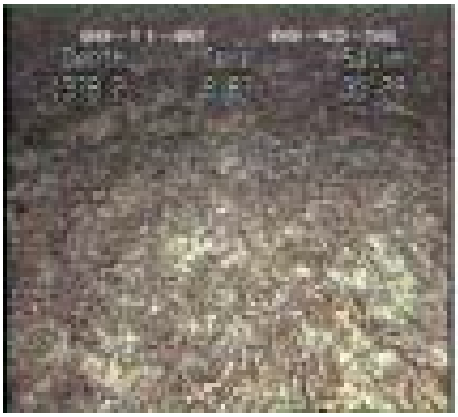

Image C: Hard Coral
34° 19.524' N, 75° 47.190' W

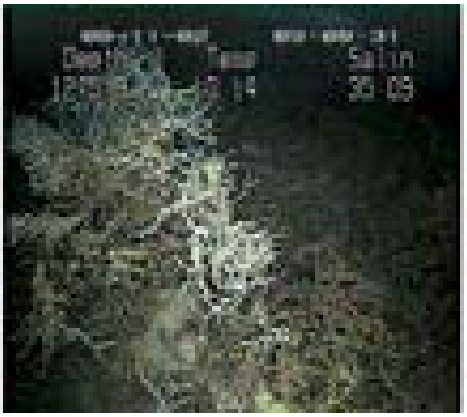

Image D: Sand/Rubble/Rock-Barren
34° 19.428' N, 75° 47.298' W

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

A high diversity and number of fish were observed during this dive, the majority of which were found over the initial rubble strewn area at the base of the mound. Fish species included *Myxine glutinosa, Fenestraja plutonia, Scyliorhinus retifer, Laemonema barbatulum*, *Hoplostethus occidentalis*, and an unidentified *Synagrops* species. A large diversity of mobile invertebrates were observed as well, such as *Rochinia crassa, Eumunida picta*, pencil urchins, brittle stars and basket stars. A squid and a large octopus were also seen during the dive. Though the reef was made up of *Lophelia pertusa* growth, there was a good sized colony of a *Madrepora* attached to *L. pertusa* rubble. No other corals or sponges were observed.

PHYSICAL ENVIRONMENT

This dive began over mixed sand/rubble/rock that transitioned to low-relief rubble. The flat plain rapidly transitioned to a steep slope (40-50°) covered in a mixture of dense dead coral matrices and moderate-relief *Lophelia* bushes. The apex of this mound consisted of rolling ridges covered in dense thickets of *Lophelia* growth (~30% living) with rubble and heavy sediment common in the valleys between. The area surrounding the reef was predominantly flat sand/rubble/rock without attached fauna.

ADDITIONAL COMMENTS

This dive was captured on 3 mini DVs and archived on 3 DVDs. The three DVs all had a grainy/hazy quality and a green color balance. There was also something that blurred a large portion of the internal lens on the camera, causing some of the video to look out of focus. The video recorded during transects was often dark, and stationary footage was often shot too closely to the reef, with numerous instances when the camera was actually touching the substrate.