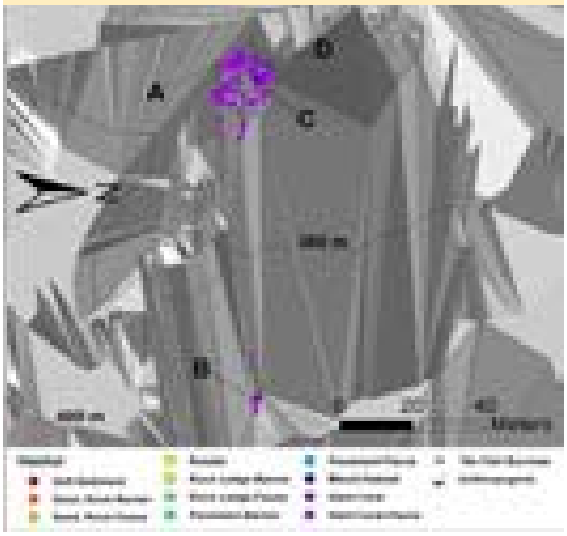
DIVE NUMBER: JSLI-4362 *STUDY AREA: Cape Lookout Lophelia A*

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), M Randall (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, AM Quattrini, ML Partyka
Date Compiled	11/16/2006

GENERAL LOCATION

Dive Track:



DIVE DATA

Date	22-Sep-01
Minimum Bottom Depth (m)	367
Maximum Bottom Depth (m)	399
Start Bottom Time (EDT)	16:21
End Bottom End (EDT)	18:36
Starting Latitude (N)	34° 19.425'
Starting Longitude (W)	75° 47.488'
Ending Latitude (N)	34° 19.418'
Ending Longitude (W)	75° 47.507'
Surface Current (Kts)	
Bottom Current (Kts)	

Image A: Hard Coral-Fauna
34º 19.404' N, 75º 47.508' W

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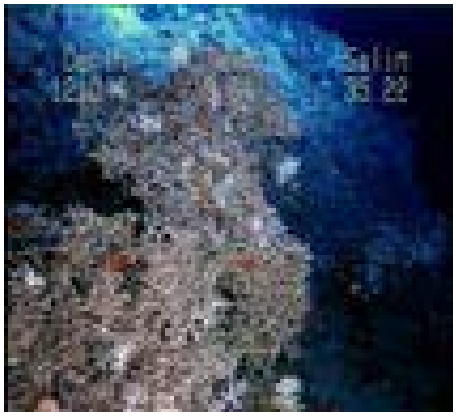
IMAGE GALLERY *** indicates image position is approximated**

Image B: Hard Coral
34° 19.422' N, 75° 47.478' W

Image C: Hard Coral
34° 19.416' N, 75° 47.508' W

Image D: Hard Coral
34° 19.410' N, 75° 47.514' 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

The entire dive took place over a dense *Lophelia pertusa* reef made up of standing bushes of heavily cemented, primarily dead, *Lophelia*. Only about 5-10% of the coral observed was living. Though the majority of the reef had little to no attached macrofauna, a region toward the end of the dive was marked for enormous numbers of orange anemones covering the dead *Lophelia* stands. The most common mobile invertebrates were *Eumunida picta* and brittle stars as well as pencil and spiny urchins. Flytrap anemones and basket stars were observed only occasionally. A large diversity, but low abundance, of fishes were identified during this dive. The most common species were *Helicolenus dactylopterus, Hemanthias aureorubens, Polyipnus clarus, Laemonema melanurum* and *L. barbatulum*. Other species witnessed during this dive included *Anthias woodsi, Conger oceanicus, Hoplostethus occidentalis,* and *Mobula hypostoma*.

PHYSICAL ENVIRONMENT

Habitats encountered during this dive were restricted to hard coral with and without attached macrofauna. Both varieties were dominated by moderate to high-relief coral bushes bearing less than 10% living material. These coral structures were often heavily cemented and filled in with sediment near the base. The overall landscape was one of rolling peaks and valleys with sandy patches often occurring between coral growths.

ADDITIONAL COMMENTS

The dive was recorded on 3 mini DVs, the first two of which had no audio track. These DVs were archived on 3 separate DVDs. All three DVs were without time or CTD data overlay. The majority of the footage was shot around the deployment of a crab trap with little submersible movement. There is interesting footage of a large mobulid ray swimming above the reef.