# **DIVE NUMBER: JSLI-4692**

# STUDY AREA: Cape Lookout Lophelia A

### STATION OVERVIEW

Project Life on the Edge 2004

Principal investigators SW Ross<sup>1</sup>

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Mapping of deep coral banks, ecological studies **Purpose** 

of macroinvertebrates and fishes, paleoclimate studies, coral genetics and educational outreach

R/V Seward Johnson, Johnson Sea Link I Vessel

Submersible

Science Divers KJ Sulak (bow), B Williams (stern)

**External Video Tapes** 2 mini DVs, 1 HD

1 mini DV **Internal Video Tapes** 

**Digital Still Photos** 0

dGPS **Positioning System** 

**CTD File V** 

**Specimens Collected** 

**DIVE DATA** 

Other Hard copies of bow and stern audio logs

NOAA-OE, NOAA Fisheries, USGS, UNCW, NC Acknowledgements

Museum of Natural Sciences

**SEADESC Analyst** AM Necaise, ML Partyka

**Date Compiled** 11/16/2006

## **GENERAL LOCATION**



**Dive Track:** 

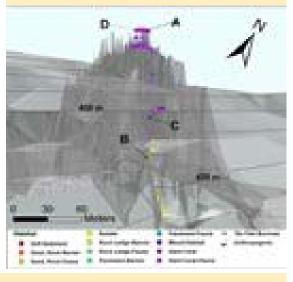


Image A: Hard Coral-Fauna 34° 19.452' N, 75° 47.202' W

| Date                     | 15-Jun-04   |
|--------------------------|-------------|
| Minimum Bottom Depth (m) | 380         |
| Maximum Bottom Depth (m) | 426         |
| Start Bottom Time (EDT)  | 8:29        |
| End Bottom End (EDT)     | 10:33       |
| Starting Latitude (N)    | 34° 19.428' |
| Starting Longitude (W)   | 75° 47.172' |
| Ending Latitude (N)      | 34° 19.444' |
| Ending Longitude (W)     | 75° 47.218' |
| Surface Current (Kts)    | 4.1         |
| Bottom Current (Kts)     | 0.5         |
|                          |             |



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### **IMAGE GALLERY**

\* indicates image position is approximated

Image B: Rubble 34° 19.416' N, 75° 47.196' W Image C: Hard Coral 34° 19.416' N, 75° 47.196' W Image D: Hard Coral-Fauna 34° 19.428' N, 75° 47.214' 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**

Few fishes and several invertebrates were observed during this dive. *Laemonema barbatulum* was present in the rubble areas. Few *Helicolenus dactylopterus* and one hagfish were present on the hard coral habitat. Brittle stars were very abundant over the surface of dead coral and occupying spaces in the hard coral mounds. A large school of squid was observed in the beginning of the dive at the base of the rubble covered slope. Other mobile invertebrates observed included pencil urchins, and *Eumunida picta*, which were common on the hard coral mounds. Attached sessile invertebrates included *Lophelia pertusa*, *Novodinia antillensis*, a few sponges, and anemones.

#### PHYSICAL ENVIRONMENT

In the beginning of the dive, a strong current was evident and visibility was poor. Two habitat types were observed: 1) coral rubble and 2) hard corals without fauna. Coral rubble uniformly covered a steep slope of ~60-70°. On top of the slope, *Lophelia pertusa* was present in large mounds (< 2m relief), which consisted of mostly dead coral with live scattered on top. Few macrofauna were attached to the hard corals.

#### **ADDITIONAL COMMENTS**

This dive was captured on 2 mini DVs and saved to 2 DVDs for archiving. The overall quality of this footage was fair-to-good, some of the wide angle views were dark and there was a moderate amount of marine snow.