## **DIVE NUMBER: JSLII-3305**

# STUDY AREA: Cape Lookout Lophelia A

### STATION OVERVIEW

**Project** Islands in the Stream 2002

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

KJ Sulak, E Baird

PI Contact Info<sup>1</sup> Center for Marine Science, 5600 Marvin Moss

Ln., Wilmington, NC 28409

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

of macroinvertebrates and fishes, and educational

outreach

R/V Seward Johnson, Johnson Sea Link II Vessel

Submersible

**Science Divers** M Nizinski (bow), SW Ross (stern)

**External Video Tapes** 2 mini DVs 3 mini DVs **Internal Video Tapes** 

**Digital Still Photos** 0

**Positioning System** dGPS

**CTD File V** 

**Specimens Collected** 

**V** Other Hard copies of bow and stern audio logs

NOAA-OE, USGS, UNCW, NC Coastal Reserve, Acknowledgements

NC Museum of Natural Sciences

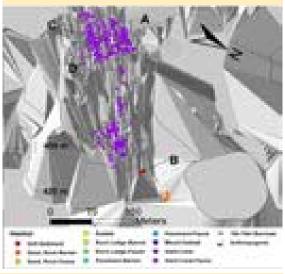
**SEADESC Analyst** AM Necaise, ML Partyka

**Date Compiled** 11/16/2006

### **GENERAL LOCATION**



**Dive Track:** 



**DIVE DATA** 

**Bottom Current (Kts)** 

Date	11-Aug-02
Minimum Bottom Depth (m)	381
Maximum Bottom Depth (m)	416
Start Bottom Time (EDT)	16:30
End Bottom End (EDT)	18:59
Starting Latitude (N)	34° 19.460'
Starting Longitude (W)	75° 47.198'
Ending Latitude (N)	34° 19.477'
Ending Longitude (W)	75° 47.200'
Surface Current (Kts)	

Image A: Hard Coral 34° 19.428' N, 75° 47.208' W



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### **IMAGE GALLERY**

\* indicates image position is approximated

Image B: Soft Substrate 34° 19.362' N. 75° 47.274' W Image C: Hard Coral 34° 19.434' N, 75° 47.232' W Image D: Hard Coral 34° 19.440' N, 75° 47.244' 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 fish were seen over the sand/rubble/rock and soft-sediment areas surrounding the main reef, and those that were, such as *Myxine glutinosa*, *Fenestraja plutonia*, and *Laemonema barbatulum*, were represented by one individual. The most common species found on the reef itself was *Hoplostethus occidentalis*, followed by *Laemonema melanurum* and *Conger oceanicus*. Other species observed in low numbers were *Helicolenus dactylopterus*, *Beryx decadactylus* (Image A), *Laemonema barbatulum* and a single *Cirrhigaleus asper*. The most common mobile invertebrates were *Eumunida picta* and *Rochinia crassa*. A single squid, a sea star and a few basket stars were also observed. The reef itself was made up of 20-40% living *Lophelia* that seemed to have much thinner, less robust, branches than observed elsewhere. There were no other corals or any sponges seen during this dive.

#### PHYSICAL ENVIRONMENT

This dive began over a mixed sediment/rubble area without attached fauna that graded into a rippled sandflat. This habitat changed abruptly at a very steep slope (~70%) covered with living and dead *Lophelia*. The reef in this area was made up of two varieties of coral growth: 1) thin branches of *Lophelia* that intersected in complicated thickets with large interstices, and 2) dense, heavily cemented bushes of dead *Lophelia* with few large interstices. Areas between coral growths were typically a mixture of sediment and coral rubble.

#### **ADDITIONAL COMMENTS**

This dive was captured on 2 mini DVs that were archived on 2 DVDs. The video had a grainy appearance and something on the internal lens of the camera obscured the view. The color balance was also off, making the footage seem green/yellow. There was a large amount of stationary footage that was filmed close to the reef during collections. There is some good footage of the collection of a *Cirrhigaleus asper*.