# DIVE NUMBER: JSLII-3427

# STUDY AREA: Cape Fear Lophelia

### **STATION OVERVIEW**

Project	Life on the Edge 2003
Principal investigators	SW Ross <sup>1</sup>
	KJ Sulak, MS Nizinski, E Baird
PI Contact Info <sup>1</sup>	Center for Marine Science, 5600 Marvin Moss Ln., Wilmington, NC 28409
Purpose	Mapping of deep coral banks, ecological studies of macroinvertebrates and fishes, paleoclimate studies, coral genetics and educational outreach
Vessel	R/V Seward Johnson, Johnson Sea Link II Submersible
Science Divers	KJ Sulak (bow), D Angell (stern)
External Video Tapes	3 mini DVs
Internal Video Tapes	1 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, NOAA Fisheries, USGS, UNCW, NC Museum of Natural Sciences
SEADESC Analyst	AM Quattrini, ML Partyka
Date Compiled	11/16/2006







## DIVE DATA

Date	22-Aug-03
Minimum Bottom Depth (m)	380
Maximum Bottom Depth (m)	431
Start Bottom Time (EDT)	8:33
End Bottom End (EDT)	10:51
Starting Latitude (N)	33° 34.280'
Starting Longitude (W)	76° 27.750'
Ending Latitude (N)	33° 34.477'
Ending Longitude (W)	76° 27.697'
Surface Current (Kts)	
Bottom Current (Kts)	0.9

Image A: Hard Coral-Fauna 33° 34.308' N, 76° 27.744' W



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IMAGE GALLERY

Image B: Rubble 33° 34.362' N, 76° 27.714' W \* indicates image position is approximated

Image C: Hard Coral 33° 34.368' N, 76° 27.708' W Image D: Hard Coral 33° 34.440' N, 76° 27.690' W



**RELEVANT WORK AND/OR LITERATURE CITED** EEZ-SCAN 87 Scientific Staff (1991) Reed and Ross (2005) Ross and Nizinski (in press)

#### **BIOLOGICAL ENVIRONMENT**

The most abundant species observed during this dive was *Maurolicus weitzmani*, owing to a school of several hundred encountered half-way through the dive. Other common, though more dispersed species, were *Hoplostethus* and *Laemonema barbatulum*. Several other species were represented by only one or two individuals, such as *Helicolenus dactylopterus*, *Scyliorhinus retifer*, and *Polyipnus clarus*. Brittle stars were the most abundant mobile invertebrates observed during the dive. *Eumunida picta*, pencil urchins and spiny urchins were also observed, though in lower numbers. Though this dive took place over predominantly hard coral habitat, there was very little live *Lophelia* present (<10%). Numerous orange anemones covered the coral at the beginning of the dive (Images A & B), but were largely absent during the remainder of the dive.

#### PHYSICAL ENVIRONMENT

This dive took place over the top of this large feature, alternating between steep (~45°) slopes and flat plains. Most of the hard coral habitat in the area was low-to-moderate-relief with little living *Lophelia* (5-10%) and often consisting of dense dead coral matrices rather than bushes. The coral rubble in the rubble habitat had less structure than the dead coral matrices.

#### **ADDITIONAL COMMENTS**

This dive was recorded on 2 mini DVs and archived on 2 DVDs. Most of the footage was of habitat and fishes filmed in close up while the sub was stationary. At times, the view was out of focus, too dark, or blurred from condensation on the inner camera lens.