DIVE NUMBER: JSLI-4361

STUDY AREA: Cape Lookout Lophelia A

STATION OVERVIEW

Project Islands in the Stream 2001

Principal investigators SW Ross¹

KJ Sulak, E Baird

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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 KJ Sulak (bow), SW Ross (stern)

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

Digital Still Photos 0

Positioning System dGPS

CTD File
✓
Specimens Collected
✓

Other Hard copy of bow audio log, no dive track

recorded

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

Bottom Current (Kts)

| Date | 22-Sep-01 |
|--------------------------|-------------|
| Minimum Bottom Depth (m) | 384 |
| Maximum Bottom Depth (m) | 427 |
| Start Bottom Time (EDT) | 8:44 |
| End Bottom End (EDT) | 11:23 |
| Starting Latitude (N) | 34° 19.680' |
| Starting Longitude (W) | 75° 47.370' |
| Ending Latitude (N) | 34° 19.690' |
| Ending Longitude (W) | 75° 47.530' |
| Surface Current (Kts) | |

Image A: Rubble (No Position Available)



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IMAGE GALLERY

* indicates image position is approximated

Image B: Hard Coral (No Position Available)

Image C: Hard Coral (No Position Available)

Image D: Hard Coral (No Position Available)







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 majority of the fish observed during the course of this dive were found over the rubble habitat near the beginning. Aside from large numbers of mid-water fish like myctophids and *Polyipnus clarus, Helicolenus dactylopterus* and *Laemonema barbatulum* were most common. *Nezumia aequalis* and two *Scyliorhinus* spp. were also seen in this habitat. *Trachyscorpia cristulata* and *Helicolenus dactylopterus*, as well as *Scyliorhinus* spp. and *S. retifer* were seen in small numbers over the hard coral habitat. Two species of codling were observed over the reef as well, *Laemonema melanurum*, and *L. barbatulum*. Mobile invertebrates included *Echinus* spp. and *Eumunida picta*.

PHYSICAL ENVIRONMENT

This dive began transecting over rubble habitat with low relief that transitioned into a dense dead coral matrix with small growths of living *Lophelia pertusa*. This region eventually gave way to a moderate-to-high-relief hard coral region with 10-15% live *Lophelia pertusa* growth. These larger mounds of coral were heavily cemented near the base and surrounded by dense layers of rubble.

ADDITIONAL COMMENTS

This dive was recorded to 3 mini DVs and archived on 3 DVDs. There was no CTD or time overlay for this video. Additionally there is no dive track data available so the habitat characterization could not be mapped.