## **DIVE NUMBER: JSLII-3461**

# STUDY AREA: Charleston Bump

### STATION OVERVIEW

Project Estuary to the Abyss 2004

Principal investigators GR Sedberry<sup>1</sup>

PI Contact Info¹ Marine Resources Research Institute, SCDNR

P.O. Box 12559 Charleston SC 29422-2559

Purpose To investigate a sponge-lined cliff reported by

Popenone and Manheim (2001).

Vessel R/V Seward Johnson 2, Johnson Sea Link II

Submersible

Science Divers LR Sautter (bow), S Griffin (stern)

External Video Tapes 3 mini DVs

**Internal Video Tapes** 

**Digital Still Photos** 

Positioning System dGPS

CTD File ✓

Specimens Collected

Other

Acknowledgements NOAA-OE

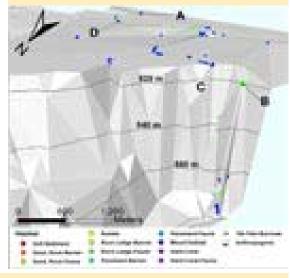
SEADESC Analyst ML Partyka

Date Compiled 12/19/2006

### **GENERAL LOCATION**



## **Dive Track:**



### **DIVE DATA**

| Date                     | 22-Aug-04   |
|--------------------------|-------------|
| Minimum Bottom Depth (m) | 513         |
| Maximum Bottom Depth (m) | 581         |
| Start Bottom Time (EDT)  | 13:23       |
| End Bottom End (EDT)     | 16:08       |
| Starting Latitude (N)    | 31° 15.522' |
| Starting Longitude (W)   | 78° 56.357' |
| Ending Latitude (N)      | 31° 13.806' |
| Ending Longitude (W)     | 78° 55.056' |
| Surface Current (Kts)    |             |
| Bottom Current (Kts)     | 0.7         |

Image A: Mixed Habitat 31° 13.806' N, 78° 55.056' W



### **DIVE NUMBER: JSLII-3461**

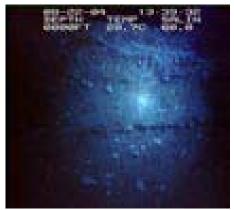
## STUDY AREA: Charleston Bump

### **IMAGE GALLERY**

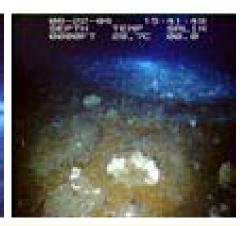
\* indicates image position is approximated

Image B: Rock Ledge-Fauna 31° 15.390' N, 78° 56.316' W

Image C: Mixed Habitat 31° 15.426' N, 78° 56.244' W Image D: Mixed Habitat 31° 15.078' N, 78° 55.098' W







### **RELEVANT WORK AND/OR LITERATURE CITED**

Popenoe and Manheim (2001) Sedberry (2001)

### **BIOLOGICAL ENVIRONMENT**

Numerous fishes were observed during the course of this dive including *Laemonema melanurum*, *Nezumia sclerorhynchus*, *Polyprion americanus*, *Squalus* spp. and *Scyliorhinus retifer*. Mobile invertebrates were less common. These included pencil urchins, spiny orange urchins, sea stars, a slip shell and an octopus. The sessile invertebrate community was both diverse and densely populated. Hard and soft corals, such as *Stylaster*, cup corals, primnoids, whip corals and isidids dominated most of the area. A variety of sponges and anemones were abundant. A large black coral completely covered in colonial anthozoans was also observed.

#### PHYSICAL ENVIRONMENT

This dive began in a dense, low-relief (<1m) mixed habitat community covered in a combination of coral rubble and fine sediments. Initial rock ledge habitats encountered were made up of low-relief, large managenese slabs which gave way to a towering wall. The entire wall was covered in a dense community of sponges and soft corals. The top of the wall was a flat, mixed habitat plateau with a combination of oxidized sediments, hard-pan rock and manganese slabs.

### **ADDITIONAL COMMENTS**

This dive was recorded on 3 mini DVs. While the water-quality was excellent, most of the footage was underlit, making identifications of macrofauna difficult. The CTD data overlay was incorrect throughout the dive, though the data collected was correct. There was also condensation on the inner camera lens that often blurred and obscured portions of the view. Sediment, rocks, a sponge and crinoids were collected.