## **DIVE NUMBER: JSLII-3415**

# STUDY AREA: Charleston Bump

### STATION OVERVIEW

Project Investigating the Charleston Bump 2003

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

SE Stancyk

PI Contact Info¹ Marine Resources Research Institute, SCDNR

P.O. Box 12559 Charleston SC 29422-2559

Purpose To explore and describe habitats and associated

fauna of high-relief features of the Charleston

Bump

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

Submersible

Science Divers SE Stancyk (bow), J McClelland (stern)

External Video Tapes 2 mini DVs

**Internal Video Tapes** 

**Digital Still Photos** 

Positioning System dGPS

CTD File ✓

Specimens Collected

Other

Acknowledgements NOAA-OE

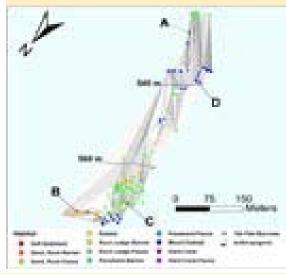
SEADESC Analyst ML Partyka

Date Compiled 12/19/2006

### **GENERAL LOCATION**



**Dive Track:** 



### **DIVE DATA**

Date	11-Aug-03
Minimum Bottom Depth (m)	520
Maximum Bottom Depth (m)	570
Start Bottom Time (EDT)	16:58
End Bottom End (EDT)	18:11
Starting Latitude (N)	31° 24.048'
Starting Longitude (W)	78° 46.126'
Ending Latitude (N)	31° 23.796'
Ending Longitude (W)	78° 46.150'
Surface Current (Kts)	
Bottom Current (Kts)	0.1

Image A: Rock Ledge-Fauna 31° 23.826' N, 78° 46.158' W



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### **IMAGE GALLERY**

\* indicates image position is approximated

Image B: Sand/Rubble/Rock-Fauna 31° 24.036' N. 78° 46.128' W

Image C: Rock Ledge-Fauna 31° 23.976' N. 78° 46.164' W

Image D: Mixed Habitat 31° 23.850' N, 78° 46.170' W







**RELEVANT WORK AND/OR LITERATURE CITED** 

Popenoe and Manheim (2001) Sedberry (2001)

### **BIOLOGICAL ENVIRONMENT**

Very few fishes were observed on the video for this dive. Those identified included *Laemonema barbatulum* and *L. melanurum*. Mobile invertebrates were also uncommon though several shrimp were seen in one area along with sea stars and an unidentified galatheid crab. The macrofaunal community was also depauperate, though this may be to the poor quality of the video that prohibited clear views of the bottom. The dominant macrofauna were small stony corals, such as *Stylaster*, as well as small growths of *Lophelia pertusa* and *Enallopsammia* along with various hexactinellid sponges.

#### PHYSICAL ENVIRONMENT

Dive begins at the base of a moderate slope (~30°) in a hardbottom habitat covered in coarse sand and fine coral rubble. There were few macrofauna present other than scattered stony corals until the sub approached an upslope mixed habitat area. This mixed habitat area, dominated by low relief *Lophelia*, *Enallopsammia*, *Stylaster* and hexactinellids, was more depauperate than others encountered in this region. The dive progressed upslope encountering a range of habitats that were subtly differentiated by dominance of fauna and relief of rocky features, before reaching the top of the ridge. This region was predominantly rock ledge habitat with attached fauna.

### **ADDITIONAL COMMENTS**

This dive was recorded on 2 mini DVs. There was no time or CTD overlay on this video so the audio commentary was used to correlate video time and real time. The overall quality of this footage was poor as the majority of it was filmed out of focus. The inner lens of the camera was cloudy which obscured the center of the view. A sponge, coral, rock and sediment were collected. Carrion traps deployed on this dive were retrieved on Dive 3417.