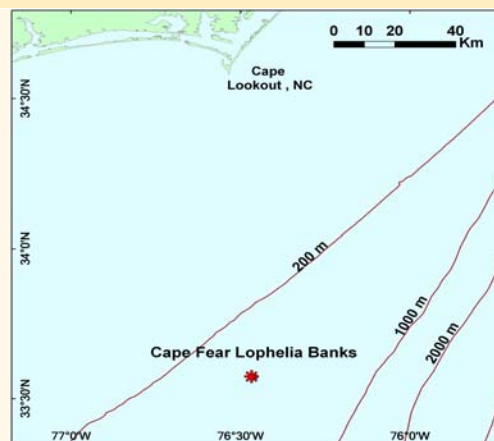
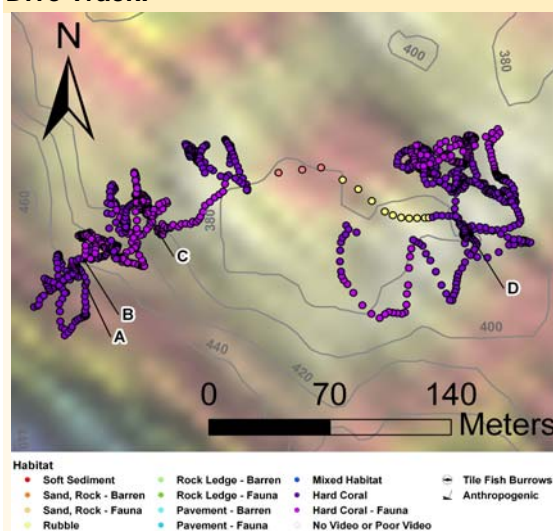


DIVE NUMBER: JSLI-4896**STUDY AREA: Cape Fear Lophelia****STATION OVERVIEW**

Project	Life on the Edge 2005
Principal investigators	SW Ross ¹ MS Nizinski, E Baird, C Morrison
PI Contact Info¹	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 education outreach
Vessel	R/V Seward Johnson, Johnson Sea Link I Submersible
Science Divers	C Morrison (bow), T Birdsong (stern)
External Video Tapes	3 mini DVs
Internal Video Tapes	3 mini DVs
Digital Still Photos	Yes
Positioning System	dGPS
CTD File	<input checked="" type="checkbox"/>
Specimens Collected	<input checked="" type="checkbox"/>
Other	Hard copy of bow audio log
Acknowledgements	NOAA-OE, NOAA Fisheries, USGS, UNCW, NC Museum of Natural Sciences
SEADESC Analyst	A Zilg
Date Compiled	6/21/2011
PI Station Number	JSLI-05-4896

GENERAL LOCATION**Dive Track:****DIVE DATA**

Date	20-Oct-05
Minimum Bottom Depth (m)	372
Maximum Bottom Depth (m)	399
Start Bottom Time (EDT)	8:24
End Bottom End (EDT)	10:50
Starting Latitude (N)	33° 34.176'
Starting Longitude (W)	76° 27.894'
Ending Latitude (N)	33° 34.170'
Ending Longitude (W)	76° 27.770'
Surface Current (Kts)	
Bottom Current (Kts)	0.1

Image A: Hard Corals - without Attached Fauna
33° 34.187' N, 76° 27.885' W



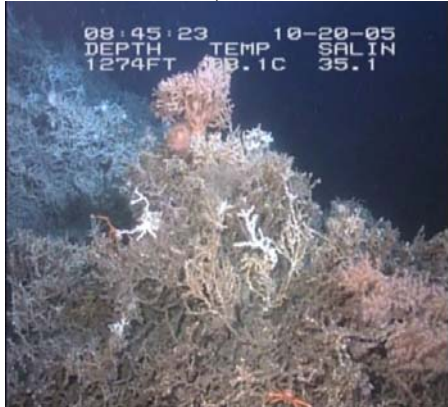
DIVE NUMBER: JSLI-4896

STUDY AREA: Cape Fear Lophelia

IMAGE GALLERY

* indicates image position is approximated

**Image B: Hard Corals -
without Attached Fauna**
33° 34.190' N, 76° 27.888' W



**Image C: Hard Corals -
with Attached Fauna**
33° 34.208' N, 76° 27.862' W



**Image D: Hard Corals -
without Attached Fauna**
33° 34.198' N, 76° 27.736' W



RELEVANT WORK AND/OR LITERATURE CITED

- EEZ-SCAN 87 Scientific Staff (1991)
- Reed and Ross (2005)
- Ross and Nizinski (2007)
- Ross and Quattrini (2007, 2009)
- Quattrini et al. (in press)

BIOLOGICAL ENVIRONMENT

Various invertebrates and fishes were common during this dive. Cup corals were common on the dead *Lophelia pertusa* matrix, as were areas of abundant orange anemones. Flytrap anemones were also abundant throughout the dive. Octocorals were commonly observed, while only a single colony of *Madrepora oculata* was observed (not alive). A single antipatharian was observed and collected. *Aphrocallistes* spp. were commonly observed. *Eumunida picta* was abundant. Fishes observed included *Helicolenus dactylopterus*, *Nezumia* spp., *Conger oceanicus*, and one *Polyprion americanus*.

PHYSICAL ENVIRONMENT

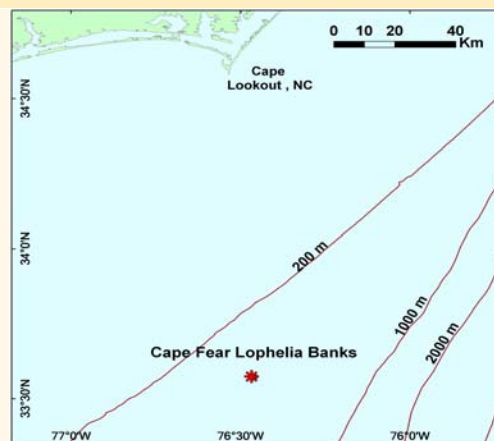
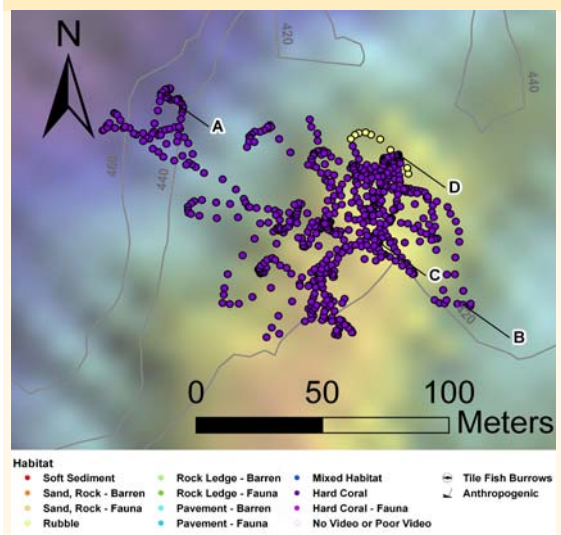
The dive started directly on the Cape Fear mound in hard coral habitat. Most of the dive occurred on hard coral habitat with some areas of attached fauna. The only rubble observed was in a trough mid-mound. Ridges and valleys with moderate slope were characteristic of this site. Tops of ridges were low profile *L. pertusa*, while the slopes were moderate to high profile. The entire mound was covered by a dense matrix of mostly dead *L. pertusa* (<20% live). A current of 0.1-0.2 kn from the south was present throughout the dive, except at the top of the mound where currents reached 0.5 kn. Good visibility occurred throughout the dive.

ADDITIONAL COMMENTS

The external bow video was captured on 3 mini DVs and archived on 3 DVDs. Internal bow video was captured on 3 mini DVs and archived on 3 DVDs. The video quality was clear.

DIVE NUMBER: JSLI-4897**STUDY AREA: Cape Fear Lophelia**

STATION OVERVIEW	
Project	Life on the Edge 2005
Principal investigators	SW Ross ¹ MS Nizinski, E Baird, C Morrison
PI Contact Info ¹	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 education outreach
Vessel	R/V Seward Johnson, Johnson Sea Link I Submersible
Science Divers	M Nizinski (bow), R Greene (stern)
External Video Tapes	6 mini DVs
Internal Video Tapes	2 mini DVs
Digital Still Photos	Yes
Positioning System	dGPS
CTD File	<input checked="" type="checkbox"/>
Specimens Collected	<input checked="" type="checkbox"/>
Other	Hard copies of bow and stern audio logs
Acknowledgements	NOAA-OE, NOAA Fisheries, USGS, UNCW, NC Museum of Natural Sciences
SEADESC Analyst	A Zilg
Date Compiled	6/30/2011
PI Station Number	JSLI-05-4897

GENERAL LOCATION**Dive Track:****DIVE DATA**

Date	20-Oct-05
Minimum Bottom Depth (m)	404
Maximum Bottom Depth (m)	443
Start Bottom Time (EDT)	16:21
End Bottom End (EDT)	18:26
Starting Latitude (N)	33° 34.446'
Starting Longitude (W)	76° 27.978'
Ending Latitude (N)	33° 34.644'
Ending Longitude (W)	76° 27.952'
Surface Current (Kts)	
Bottom Current (Kts)	0.2

Image A: Hard Corals - without Attached Fauna
33° 34.656' N, 76° 27.981' W



DIVE NUMBER: JSLI-4897

STUDY AREA: Cape Fear Lophelia

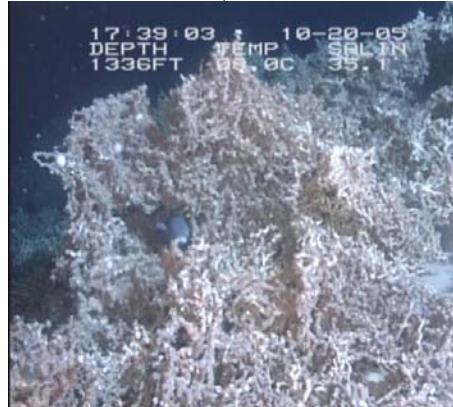
IMAGE GALLERY

* indicates image position is approximated

**Image B: Hard Corals -
without Attached Fauna**
33° 34.612' N, 76° 27.905' W



**Image C: Hard Corals -
without Attached Fauna**
33° 34.625' N, 76° 27.928' W



**Image D: Hard Corals -
without Attached Fauna**
33° 34.645' N, 76° 27.915' W



RELEVANT WORK AND/OR LITERATURE CITED

EEZ-SCAN 87 Scientific Staff (1991)
Reed and Ross (2005)
Ross and Nizinski (2007)
Ross and Quattrini (2007, 2009)
Quattrini et al. (in press)

BIOLOGICAL ENVIRONMENT

The entire dive took place over a dense *Lophelia pertusa* reef made up of primarily dead *L. pertusa* boulders and rubble. Only about 5-10% of the coral observed was living. Cup corals were abundant on the dead *L. pertusa*, while sponges and soft corals were rare. The most common mobile invertebrates were *Eumunida picta* and brittle stars. A single *Rochinia crassa* was observed and collected. Flytrap anemones and basket stars were observed occasionally. Fishes observed on this dive included *Helicolenus dactylopterus*, *Laemonema melanurum*, *L. barbatulum*, *Conger oceanicus*, *Beryx decadactylus*, *Nezumia* spp. and a large wreckfish (*Polyprion americanus*).

PHYSICAL ENVIRONMENT

This dive traversed ridges and troughs of hard coral habitat the entire time, except for a small section of rubble in a valley. Hard coral coverage was mostly dead (less than 10% live) and moderate profile (~0.5m). Coverage was moderately dense, areas of soft sand substrate were consistently visible beneath the coral. Coral rubble and fallen *L. pertusa* matrices were present throughout the dive. Visibility was 35-40 ft with a 0.2 kn current from 330°.

ADDITIONAL COMMENTS

The external bow video was captured on 3 mini DVs and archived on 3 DVDs. External stern video was captured on 3 mini DVs and archived on 3 DVDs. Internal bow video was captured on 2 mini DVs and archived on 2 DVDs. The video quality was clear.