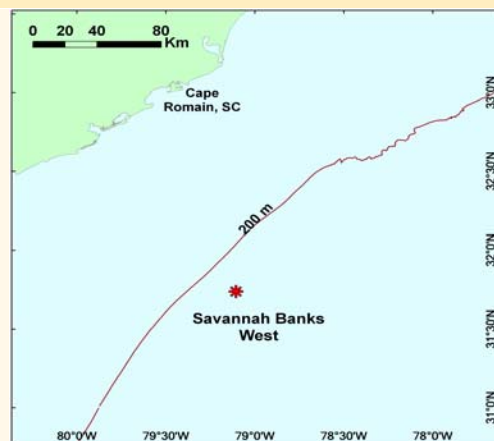
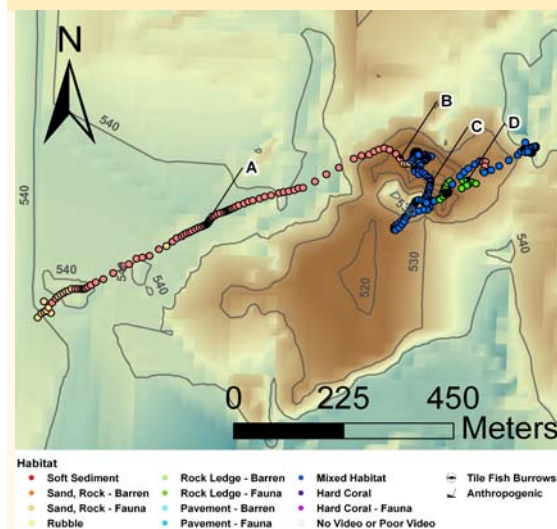


DIVE NUMBER: JSLI-4900**STUDY AREA: Savannah Banks West**

| 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 | B Lubinski (stern) |
| External Video Tapes | 6 mini DVs |
| Internal Video Tapes | 0 |
| Digital Still Photos | 0 |
| Positioning System | dGPS |
| CTD File | <input checked="" type="checkbox"/> |
| Specimens Collected | <input checked="" type="checkbox"/> |
| Other | Training dive, hard copy stern audio log |
| Acknowledgements | NOAA-OE, NOAA Fisheries, USGS, UNCW, NC Museum of Natural Sciences |
| SEADESC Analyst | A Zilg |
| Date Compiled | 7/7/2011 |
| PI Station Number | JSLI-05-4900 |

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

| | |
|--------------------------|-------------|
| Date | 22-Oct-05 |
| Minimum Bottom Depth (m) | 500 |
| Maximum Bottom Depth (m) | 544 |
| Start Bottom Time (EDT) | 17:03 |
| End Bottom End (EDT) | 19:17 |
| Starting Latitude (N) | 31° 44.358' |
| Starting Longitude (W) | 79° 06.159' |
| Ending Latitude (N) | 31° 44.568' |
| Ending Longitude (W) | 79° 05.526' |
| Surface Current (Kts) | 2 |
| Bottom Current (Kts) | 0.2 |

Image A: Sand/Rubble/Rock - with Attached Fauna

31° 44.469' N, 79° 05.942' W



DIVE NUMBER: JSLI-4900

STUDY AREA: Savannah Banks West

IMAGE GALLERY

* indicates image position is approximated

Image B: Sand/Rubble/Rock-Barren

31° 44.570' N, 79° 05.694' W

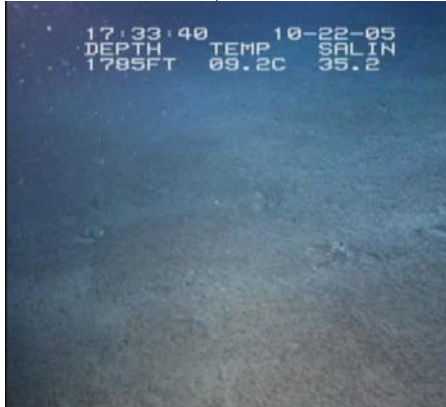


Image C: Mixed Habitat

31° 44.523' N, 79° 05.652' W



Image D: Rock Ledge - with Attached Fauna

31° 44.537' N, 79° 05.626' W



RELEVANT WORK AND/OR LITERATURE CITED

| | |
|-------------------------------------|---------------------------------|
| Milliman et al. (1967) | Reed and Ross (2005) |
| Ayers and Pilkey (1981) | Reed et al. (2006) |
| EEZ-SCAN 87 Scientific Staff (1991) | Ross and Nizinski (2007) |
| Reed (2002) | Ross and Quattrini (2007, 2009) |

BIOLOGICAL ENVIRONMENT

Very few fish were observed on this dive and were represented by very few individuals. The most common fish was *Laemonema melanurum* in all habitats observed. A few *Nezumia* spp. and squalid sharks were observed on mound. *Fenestraja plutonia* was observed on the soft substrate rubble mix. In the soft substrate rubble mix *Phykalleia* spp. was abundant in patches. Mound substrate of rock ledge and rubble was covered with abundant mixed fauna. Hard corals were represented by individuals of *Lophelia pertusa*, *Madrepora oculata*, *Enallopsammia profunda*, and numerous cup corals. Gorgonians were abundant but too small to be properly identified. Samples of *Leiopathes* sp. and *Bathypathes* sp. were taken. Sponges were abundant, and numerous dead sponges were observed. Live sponges included *Aphrocallistes* spp., *Hertwigia* spp., *Phakallia* spp., and other hexactinellids. Galatheid crabs and one other crab (unidentified) were the only motile invertebrates observed; both were closer to the top of ridges.

PHYSICAL ENVIRONMENT

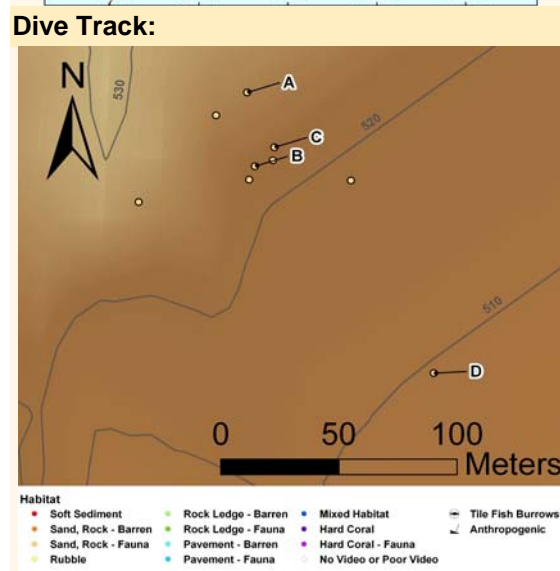
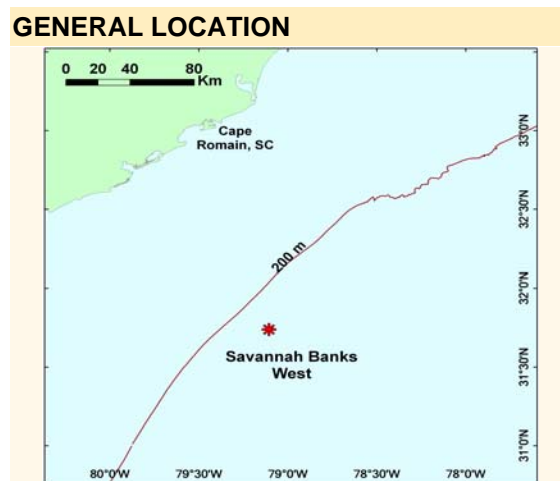
Four habitat types were observed during this dive: 1) mixed coral community, 2) rock ledges with attached fauna, 3) soft substrate with rubble, and 4) soft substrate and rubble with attached fauna. Soft substrate habitats had patchy distributions of sponges and large rubble. The mixed and rock ledge communities consisted of numerous small corals and sponges. Two ridges were traversed; both exhibited slopes of around 40° and were low profile (< 1m). A few *L. pertusa* boulders were present at the top of the first ridge. Currents were magnified at the top of ridges.

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. This dive was a training dive; the sub often moved inconsistently and video was blurry at times. Good example of mixed habitat on this dive.

DIVE NUMBER: JSLI-4901**STUDY AREA: Savannah Banks West**

| 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 | T Casazza (bow), M Partyka (stern) |
| External Video Tapes | 1 mini DV |
| Internal Video Tapes | 1 mini DV |
| Digital Still Photos | 0 |
| 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 | 7/26/2011 |
| PI Station Number | JSLI-05-4901 |

**DIVE DATA**

| | |
|--------------------------|-------------|
| Date | 23-Oct-05 |
| Minimum Bottom Depth (m) | 507 |
| Maximum Bottom Depth (m) | 508 |
| Start Bottom Time (EDT) | 8:28 |
| End Bottom End (EDT) | 8:35 |
| Starting Latitude (N) | 31° 42.366' |
| Starting Longitude (W) | 79° 07.424' |
| Ending Latitude (N) | 31° 42.306' |
| Ending Longitude (W) | 79° 07.390' |
| Surface Current (Kts) | 1.6 |
| Bottom Current (Kts) | 0.6 |

Image A: Sand/Rubble/Rock - with Attached Fauna
31° 42.366' N, 79° 07.416' W *



DIVE NUMBER: JSLI-4901

STUDY AREA: Savannah Banks West

IMAGE GALLERY

* indicates image position is approximated

**Image B: Sand/Rubble/Rock -
with Attached Fauna**

31° 42.349' N, 79° 07.413' W *



**Image C: Sand/Rubble/Rock -
with Attached Fauna**

31° 42.354' N, 79° 07.408' W *



**Image D: Sand/Rubble/Rock -
with Attached Fauna**

31° 42.302' N, 79° 07.363' W *



RELEVANT WORK AND/OR LITERATURE CITED

Milliman et al. (1967)

Ayers and Pilkey (1981)

EEZ-SCAN 87 Scientific Staff (1991)

Reed (2002)

Reed and Ross (2005)

Reed et al. (2006)

Ross and Nizinski (2007)

Ross and Quattrini (2007, 2009)

BIOLOGICAL ENVIRONMENT

For the short time the sub was on the bottom, a soft rubble habitat with attached fauna was observed. Small scleractinian corals, soft corals, and sponges were attached to rock and rubble. Large *Phakellia* sp. sponges were present. Fishes observed included *Laemonema melanurum*, *Nezumia sclerorhynchus*, *Chloropthalmus agassizi*, and *Squalus cubensis*.

PHYSICAL ENVIRONMENT

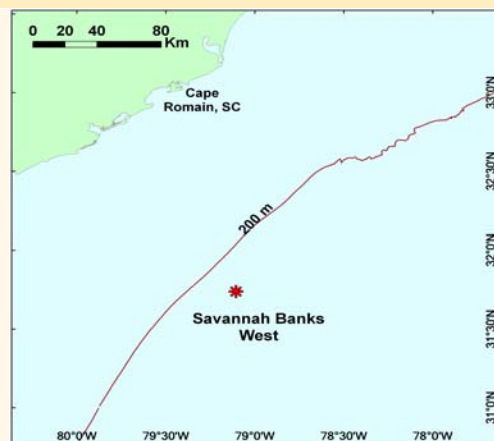
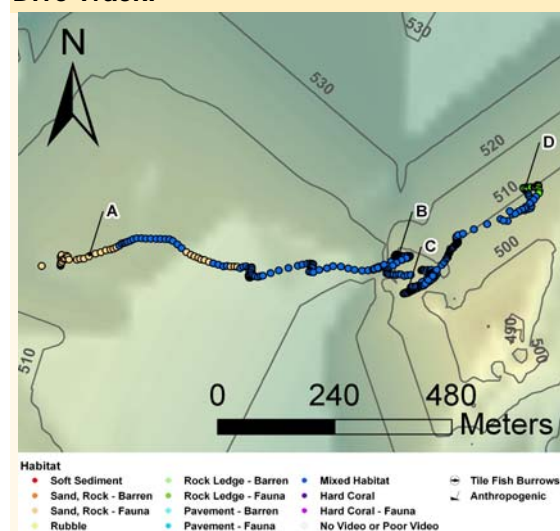
This dive landed in a soft rubble and rock mix with attached fauna. The bottom was low profile and had a gentle slope (~10°). Currents were strong and visibility was cloudy.

ADDITIONAL COMMENTS

The internal bow video was captured on 1 mini DV and archived on 1 DVD. External stern video was captured on 1 mini DV and archived on 1 DVD. A *Nezumia sclerorhynchus* was collected. The dive was called short due to inclement weather.

DIVE NUMBER: JSLI-4902**STUDY AREA: Savannah Banks West****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 | T Casazza (bow), M Partyka (stern) |
| External Video Tapes | 6 mini DVs |
| Internal Video Tapes | 3 mini DVs |
| Digital Still Photos | 0 |
| 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 | 8/4/2011 |
| PI Station Number | JSLI-05-4902 |

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

| | |
|---------------------------------|-------------|
| Date | 26-Oct-05 |
| Minimum Bottom Depth (m) | 497 |
| Maximum Bottom Depth (m) | 519 |
| Start Bottom Time (EDT) | 16:38 |
| End Bottom End (EDT) | 18:57 |
| Starting Latitude (N) | 31° 42.258' |
| Starting Longitude (W) | 79° 07.884' |
| Ending Latitude (N) | 31° 42.318' |
| Ending Longitude (W) | 79° 07.310' |
| Surface Current (Kts) | 2.8 |
| Bottom Current (Kts) | 0.7 |

Image A: Sand/Rubble/Rock - with Attached Fauna

31° 42.255' N, 79° 07.857' W



DIVE NUMBER: JSLI-4902

STUDY AREA: Savannah Banks West

IMAGE GALLERY

* indicates image position is approximated

Image B: Mixed Habitat

31° 42.272' N, 79° 07.445' W

Image C: Mixed Habitat

31° 42.231' N, 79° 07.430' W

**Image D: Rock Ledge -
with Attached Fauna**

31° 42.354' N, 79° 07.291' W



RELEVANT WORK AND/OR LITERATURE CITED

- | | |
|-------------------------------------|---------------------------------|
| Milliman et al. (1967) | Reed and Ross (2005) |
| Ayers and Pilkey (1981) | Reed et al. (2006) |
| EEZ-SCAN 87 Scientific Staff (1991) | Ross and Nizinski (2007) |
| Reed (2002) | Ross and Quattrini (2007, 2009) |

BIOLOGICAL ENVIRONMENT

The majority of the dive took place over mixed habitat. Demosponges and gorgonians were abundant, while individual hard corals, cup corals, and hexactinellid sponges were common. *Lophelia pertusa* and *Stylaster* sp. were the most commonly observed corals. Other corals, *Madrepora oculata* and *Leiopathes* spp., were observed rarely and collected. Motile invertebrates were common and included galatheid crabs, cancer crabs, *Rochinia* spp. crabs, urchins, squid, octopus, and a sea star. Fishes were observed throughout the dive. Squalid sharks were observed the entire dive and may have been following the sub. Other than the sharks, the most commonly observed fishes were *Nezumia sclerorhynchus* and *Laemonema melanurum*. Other fishes observed included scorpionfishes and a small eel.

PHYSICAL ENVIRONMENT

Three habitat types were observed on this dive. The dive started on a soft substrate rock/rubble mix with attached fauna and moved into a mixed habitat on rock/rubble substrate. A rock ledge with attached fauna was observed in an area that appeared to have experienced a disturbance which uncovered the rock ledge. The entire area displayed gentle rolling slopes with low profile habitat. No sections were dominated by hard corals. Currents were around 0.7 - 0.8 kn and there were particulates in the water column.

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 3 mini DVs and archived on 3 DVDs. Some parts of the video were dark and made classification difficult. There were good examples of mixed habitat on this dive.