

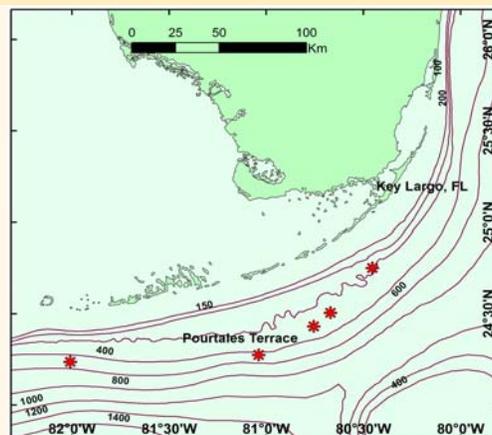
## DIVE NUMBER: J2-544

## STUDY AREA: Pourtales Terrace

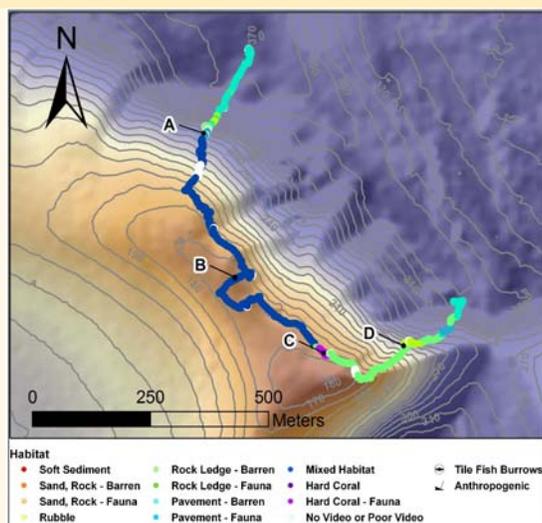
### STATION OVERVIEW

Project	Extreme Corals 2010
Principal investigators	SW Ross <sup>1</sup> , SD Brooke
PI Contact Info <sup>1</sup>	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	NOAA Ship Ronald H. Brown, Jason 2 ROV
Science Divers	J Reed, S Ross, J Tomczuk
External Video Tapes	External Hard Drive
Internal Video Tapes	
Digital Still Photos	Yes
Positioning System	dGPS
CTD File	<input checked="" type="checkbox"/>
Specimens Collected	<input checked="" type="checkbox"/>
Other	Hard copy of observation log. Virtual van logs.
Acknowledgements	NOAA- DSCRT, NOAA-OER, NOAA Fisheries, USGS, UNCW, NC Museum of Natural Sciences
SEADESC Analyst	M Wolf
Date Compiled	8/3/2011
PI Station Number	ROV-2010-RB-544

### GENERAL LOCATION



### Dive Track:



### DIVE DATA

Date	13-Nov-10
Minimum Bottom Depth (m)	162
Maximum Bottom Depth (m)	367
Start Bottom Time (EDT)	12:21
End Bottom End (EDT)	17:32
Starting Latitude (N)	24° 25.989'
Starting Longitude (W)	80° 45.281'
Ending Latitude (N)	24° 25.697
Ending Longitude (W)	80° 45.044'
Surface Current (Kts)	2.5
Bottom Current (Kts)	

**Image A: Pavement - with Attached Fauna**  
24° 25.894' N, 80° 45.336' W



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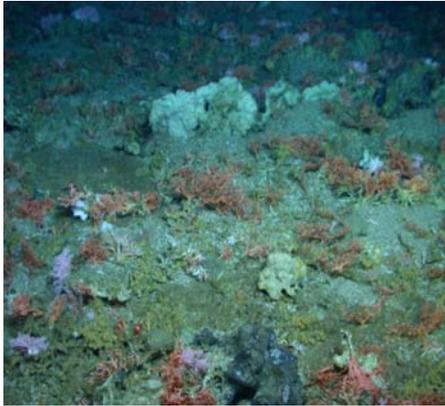
**STUDY AREA: Pourtales Terrace**

**IMAGE GALLERY**

\* indicates image position is approximated

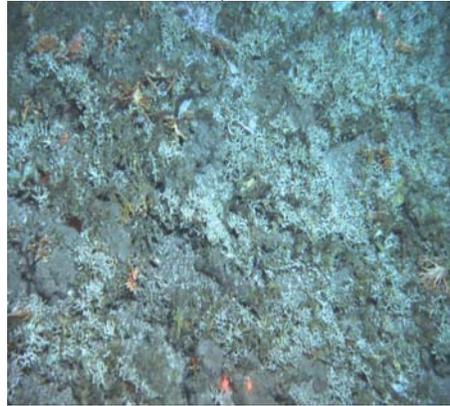
**Image B: Mixed Habitat**

24° 25.734' N, 80° 45.300' W



**Image C: Hard Corals -  
with Attached Fauna**

24° 25.650' N, 80° 45.186' W



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

24° 25.658' N, 80° 45.084' W



**RELEVANT WORK AND/OR LITERATURE CITED**

EEZ-SCAN 87 Scientific Staff (1991)  
Reed (2002)  
Reed and Ross (2005)  
Reed et al. (2006)  
Ross and Nizinski (2007)

**BIOLOGICAL ENVIRONMENT**

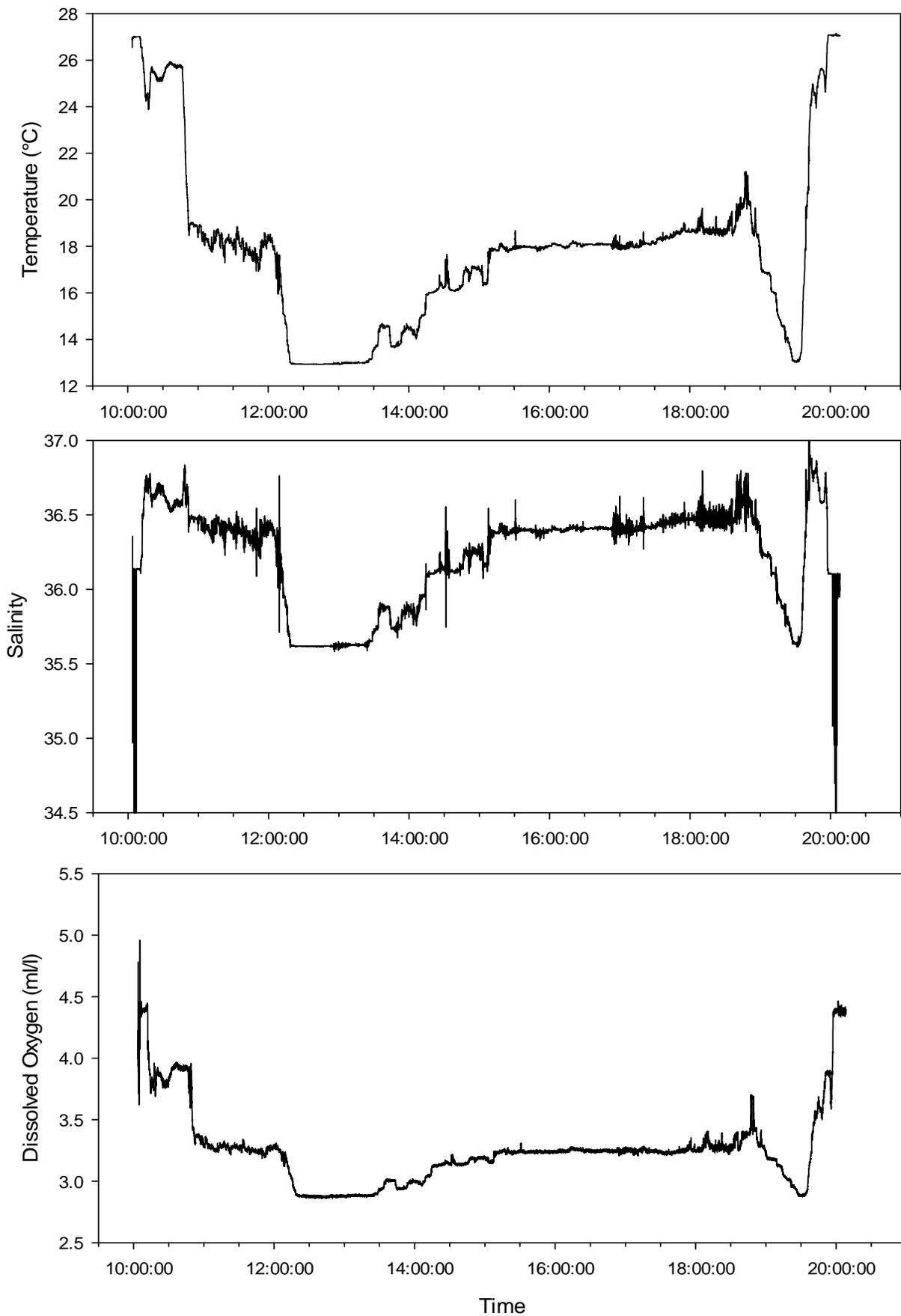
At the northeast corner of the dive track, flat pocked pavement was barren of any fauna save dead hydrozoan coral (Stylasteridae) rubble in the pocks. A mixed habitat consisted primarily of white, pink, and orange stylasterid hydrocorals, cup corals, rare colonies of *Lophelia pertusa* and a huge diversity of erect and encrusting sponges both demospongia and hexactinellids (e.g. finger, plate, conical, bulbous, and ball forms) along vertical rock faces (i.e., rock ledge with fauna) and the terrace plateau. The hard coral with fauna habitat on the ridge of the terrace was dominated by *Madracis* sp. mixed with a variety of stylasterid hydrocorals species and sponges. Mobile fauna included numerous galatheid crabs on the lower, otherwise barren, rock pavement, spider and grapsid crabs, a hermit crab, slit shell snails, cidaroid and other urchins, asteroids, a large school of amberjacks, scorpionfish, boarfish, and a bignose shark.

**PHYSICAL ENVIRONMENT**

This dive began to the northeast of the terrace beginning over flat pocked pavement substrate with no attached fauna. Approaching the terrace slope the rock pavement turns into a series of rock steps alternating with areas of vertical rock faces (i.e., rock/ledge) and rock pavement with faunal cover increasing with elevation. The top of the terrace plateaus into a large region of mixed habitat with dense fauna. The ROV descended in a southerly direction along the terrace ridge through an area of low relief white hard coral. The eastern terrace rock face (designated rock/ledge with fauna) descended down alternating steps of vertical rock faces and more gradual rock pavement. As the terrain flattened out to barren pavement to the east of the terrace, regular vertical ridges occurred at roughly 5m intervals and accumulated coral rubble and other debris. The northeast of the terrace had an abundance of trash, including glass bottles.

**ADDITIONAL COMMENTS**

Video is stored on a Mac-formatted external hard drive. Quality was extremely clear, with very few sections of unusable footage. Video time in GMT. Collections were taken of hydrozoan corals (Stylasteridae), numerous demospongia sponges, galatheid, spider and hermit crabs, a cidaroid urchin and sea stars.



Plots of CTD data recorded during ROV dive ROV-2010-RB-544 (13 Nov 2010) off Pourtales Terrace.