

ROV Jason Daily Report

Cruise Number: RB 19-03

Dive number: J2-1134

Chief Scientist: Amanda Demopoulos

Report Date: 4/24/2019

Expedition Leader: Alberto Collasius Jr.

Prepared By: Expedition Leader

Vessel Location: Atlantic 35.9W 74.8W

Weather: Good weather for Launch. Blew pretty good through the night. Just letting go for recovery

Dive Times: GMT

Dive Activities/Future Activities: Coral pots, Coral samples to quivers, Push cores, rock collection, Samples to Bio Box's, Slurp and push cores

Reason for Dive Termination: Objectives completed

Dive No.	Dates	Max Depth	Hours Descending	Hours Ascending	Hours on Bottom	Hours in water	Time On Deck	Time on Deck not available to science
J2-1128	4/10-4/11	792	:50	2:45	9:30	13:05		0
J2-1129	4/13-4/14	746	1:07	1:20	11:15	13:42	56:53	32:53
J2-1130	4/17	554	1:19	1:06	8:42	11:07	60:47	0
J2-1131	4/17-4/18	1365	1:55	2:10	13:27	17:32	10:27	0

J2-1132	4/21-4/22	1840	2:53	1:15	23:40	27:48	71:37	0
J2-1133	4/23	355	1:10	:32	9:28	11:10	9:15	0

Completed Dive Summaries:

Vehicle Status: Slurp damaged during ops. Intake broke free of hose. This impacted science. Had 2 AFX trips during first few hours of dive. Thoughts are it was GF monitor related.

Weather Forecast: Supposed to lay down this afternoon/evening and come back up tomorrow afternoon

Expedition Leader Comments: Another good dive. Aside from AFX trips and Slurp failure it went very well.

Chief Scientist Comments:

This was the first ROV dive at a known seep environment previously imaged by Sentry in 2017 and waypoints were selected based on confirmed rock, mat, and fish locations from that imagery. The ROV lost power twice and the slurp hose disconnected, but despite these issues, the dive was very successful and the scientists were able to accomplish all of their objectives. We observed dense fish communities at several hard bottom, carbonate features throughout the dive, but the dive track was dominated by soft sediments with lots of sea stars. Given the recovery of a tube worm at the Pea Island seep on the previous dive, we were keen to see if more could be found at Kitty Hawk, and we were very successful. At least 4 more tube worms were collected on this dive; these animals are previously undocumented from the US Atlantic seeps, by collecting rocks from the seafloor. Rock and shell samples were collected to characterize their mineral

composition, enable approximation of the ages of the seep features and constrain the environmental conditions. Sediment was collected at three target environments, bubbles, mats, and background habitats, for geochemical and ecological assessments. Several squat lobsters and quill worms were slurped to provide tissue for molecular and food web studies. Lastly, the niskin samples will be processed for eDNA and microbial community analysis to facilitate community comparisons among seep, canyon, and coral environments.

I've been very pleased with the skill and efficiency of the ROV team, and their attention to detail, all of which have enabled very successful dives thus far on this mission.

Contact Numbers:

WHOI/NDSF

Vessel Other

Voice: 508 289 3445 (Cathy Offinger)

Mobile: 774 392 2986 (Matt Heintz)

Email: mheintz@whoi.edu