

## Summary

**Cruise:** AT-41

**Pilot:** Jefferson    **Dive:** A4961    **Stbd Observer:** Chris Kellogg

**Date:** 8/21/18    **Site:** Pea Island Seeps    **Port Observer:** Mandy Joye

### Dive summary:

We descended through a very productive water column containing a large amount of marine snow, salps, and small fishes. The bottom was soft sediment with quill worms lying on their sides, scattered anemones, and the occasional galatheid crab. As the submersible adjusted buoyancy, we saw squid, salps, and thin ribbon-like translucent eels with black stripes at the end of their tails. While transiting between Waypoints 1 and 2 we saw a number of other fishes, including a tripod fish, a tongue fish, a cut-throat eel, black-bellied rosefish, and more of our black-striped eel friends. We collected 9 beautiful push cores in a large white bacterial mat on a slope in spite of minor squid interference. Hunted unsuccessfully for the large bubble plume, but did find broken mussel shells and carbonate so we sampled the rock, surrounding worms, and legs from a spider crab. Moved to an area of quill worms away from bacterial mats and collected 6 push cores during a squid swarm. Transited to second set of waypoints and found another large bacterial mat. Lost control of the jaw on the port manipulator and so had to switch to the starboard manipulator. Collected water samples and a set of 12 push cores in this (2<sup>nd</sup>) bacterial mat site. Continued surveying to find a 3<sup>rd</sup> bacterial mat site. Collected a water sample and 6 push cores at this site and also picked up a seastar and quill worms next to the 3<sup>rd</sup> coring site. During the ascent (particularly at 50 meters below surface), many of the sediment cores were degassing.