

Summary

Cruise: AT-41

Pilot: Jefferson Grau
Adams

Dive: A4965

Stbd Observer: Caitlin

Date: 8/26/18
Demopolous

Site: Stetson Banks

Port Observer: Amanda

Today's dive was to a site referred to as Stetson Banks Shallow in an area first mapped by *Okeanos Explorer* in May-June 2018. The planned route was to have us arrive at the bottom of a wall feature and slowly climb it throughout the dive before arriving at the top of the plateau where the next day's dive would be taking place. After a short descent (15-20 minutes), we were on bottom at a depth of 557m. We landed 1.2km from WPT1 and were unable to easily reach it given the strong bottom current. We chose to transit toward the wall as the current allowed and headed in a NW direction. We observed abundant yellow cup corals on bottom, and sampled our first black coral into Q5 at 557m. At the same site, we also added *Lophelia* and *Enallopsammia* to Q5. The first Niskin (N5) was fired in proximity to this sampling. A pushcore was attempted but the sediment we did see was just a thin cover over a much harder pavement layer. At 558m we made our first biobox collection of a diversity of corals into B1. Squid were observed swimming around the sub at this time and were in fact seen consistently throughout the dive. A rock collection was made nearby, and the rock was placed in the sampling basket aft of the quiver rack. A bamboo coral with base intact was placed in Q4 at 558m.

We continued to transit toward the ridge and observed corals throughout our transit. Diversity seemed to increase, with *Enallopsammia*, bamboo corals, fish, and sponges regularly seen. At 552m we collected *Lophelia* and plexaurid into B2. N4 was also fired after we finished collecting. At 544m we reached the slope and began to move up the slope. More crabs and sponges were present. Rocky outcrops, coral rubble, and fish (including a larger pink species) were seen. At 482m we sampled *Lophelia*, plexaurids, and bamboo coral into Q6 and collected N3 as well. Upon resuming transit, we saw amazing step/shelf features and had to pull back from the wall to ensure that the sub was clear of any overhead ledge hazards. At 428m we reached the top of the wall face and dropped back down a bit to continue sampling laterally along the wall face. *Lophelia* and plexaurids were

collected in B4 and N2 was triggered at 434m. After additional lateral movement along the ledge, we collected another coral sample (that I had misheard to be metallogorgia—not sure what it ultimately was) in Q7 at 434m. At 438m we added another rock sample behind the quiver rack. We attempted to sample *Solenosmilia* but the ledge was too narrow for sampling. At 447m we collected a *Leiopathes* into B5 and took some 4K video. At 449m, *Enallopsammia* was collected into Q3. We returned to the top of the wall and began transiting toward the final waypoint of the dive. A drift test was conducted to better understand the currents along the plateau for the following day's dive. Currents appeared to be 10m/min with a bearing of 125, NW→SE. After that, we resumed transit. A mussel pot of primarily dead *Lophelia* was collected at 429m, and N1 was fired 45m from mussel pot. A second pushcore was attempted but again the surface was too hard for sampling. A small *Paragorgia* (?) was added to Q4 at 429m. The dive concluded with some test piloting for both observers, and clearance to leave bottom was received at 1951. We reached the surface 15 minutes later.