

Summary

Cruise: AT-41

Pilot: Bruce

Dive: 4968

Stbd Observer: Rasser

Date: 8/29/18

Site: Cape Fear **Port Observer:** Lunden

Jay Lunden and I boarded the Alvin at approximately 12:00 GMT and launched at ~ 12:09 GMT. As we descended there were squid (400m) and small fish at the bottom (450 m). After we reached bottom it was apparent that this was an area of high scour with sediment depositional waves perpendicular to our route in many places (12:28). There were also interesting areas of sorted sediment from fine sand to coarse gravel size. We soon found an area that contained live *Lophelia* coral and more diversity including larger fish and urchins. We stopped to sample (Marker 6). Soon thereafter the starboard camera controls became inoperable (worked later). We moved on to the next site at 14:30, during the transit we saw a small shark and encountered some difficult currents. We stopped and the pilot checked in with the chief scientist. At this site (Marker 14) we captured some great 4K video of crabs (*Eumunida picta*) and fish (hake, chained dogfish) feeding on a squid carcass. In addition to *Lophelia* we also collected other corals including cup corals. Several large wreck fish appeared very close to the camera and were captured in 4k video (16:38-16:39 GMT). We then transited to our next site. We passed over an extensive area of sea anemones (17:03 GMT) but had great difficulty finding live coral. After transiting through large areas of dead coral we found some live *Lophelia* coral and touched down on the bottom for what would be our final sampling site. We deployed Marker 10 and collected *Lophelia* and conducted additional sampling. The pilot checked the batteries and determined that we were low on power. At 18:30 GMT a large red fish appeared near Alvin and we captured some good 4K video of a spider crab. 18:58 GMT we began ascent to the surface and had an uneventful recovery.