



Winter AMLR Oceanographic Survey

Weekly Report Number 3

September 1-8, 2014

The third week of the survey concentrated survey effort on the northern half of Elephant Island plus a transect on the east side of Clarence Island. Weather remains unseasonably warm with winds continuing to average about 15 knots, and air temperatures a balmy -8 to -10 C. Ice conditions continue to be very mild, and only pancake or slush ice has been seen in any quantity.

Approximately 25 stations have been sampled around Elephant Island. *Thysanoessa macrura* continued to be abundant, and only small numbers of Antarctic krill were observed. Interestingly, krill in this region were actively feeding and green (samples were collected for stomach analysis), and others were molting as evidenced by the high numbers of molts caught in the net. Acoustic biomass estimates of the West shelf and the northern Elephant Island region showed that both areas had low density (2.1 and 1.34 g m⁻², respectively). Fewer marine mammals were observed in this region of the sampling grid. This decline was co-incident with the paucity of krill in this region.



Integrated chl_a (100m) averaged about 13 µg m² in the EI area, similar to the amount of chlorophyll-a found during summer in the offshore waters representative of the Antarctic Circumpolar Current.

We continue to collect high quality acoustic data given the light and intermittent ice conditions we are encountering. We have conducted another fish trawl in the region between Joinville and Elephant Island. The trawl biomass was dominated by sponges with a few fish.

We begin transiting up line 3, towards Elephant Island after ending the afternoon at the most southern sampling station (02-14) adjacent to Joinville Island.

Submitted by C. Reiss, Chief Scientist, on behalf of the AMLR researchers aboard the RVIB Palmer. Photos provided by AERD researcher Jen Walsh.

