

2014-2015 Weekly Field Reports

Cape Shirreff, Livingston Island

Report 4
November 24, 2014

Seabirds:

1. The gentoo penguins have started to build nests and lay eggs this past week. We established the gentoo penguin reproduction study plots. These plots will be monitored daily throughout the season to assess the timing of breeding and reproductive success. We have begun banding one adult at each nest.



2. The first gentoo penguin eggs were seen on 20 November. To date, three gentoo penguins have initiated clutches in the reproductive study of 50 nests.
3. Chinstrap penguins have been busy laying eggs in our reproductive study plots this week. To date, 23 of the 100 reproductive study nests have initiated clutches, two have completed their clutches, and two have failed. We have begun banding both adults at each nest.

4. We continue to monitor known-age penguins for reproductive success. To date, no known-age gentoo penguins have initiated clutches but nine known-age chinstraps have initiated clutches.
5. We continued to monitor brown skua territories for nesting activity this past week. Most of the hilltops where the skuas breed are still snow covered. No eggs were seen.



Pinnipeds:

6. Our first tagged Antarctic fur seal female that carried a geolocating light sensor (GLS) instrument overwinter arrived on 20 November. She was subsequently captured, her GLS unit removed, and tissue samples collected for stable isotope analysis. Data were successfully retrieved from the instrument, providing daily estimates of latitude and longitude from the initial deployment on 26 February through 2 October. This female also has overwinter location data from two previous years as well.
7. There are no longer any elephant seal females suckling pups. Four of the 15 total pups were lost before being weaned, and an additional two weaned pups have perished. A small tissue sample (for DNA analysis) from each of the four pups lost before weaning has been collected.
8. At the last census of fur seal study beaches on 22 November, we recorded a total of 26 adult females with six pups.
9. We have recorded 12 tagged fur seals to date. Eight of these individuals represent known-age seals that were tagged at Cape Shirreff as pups. Three are now adult females and one of those three is pregnant.
10. We have concluded standard range tests of our two VHF receiving stations for monitoring trip duration of fur seals. Both stations are now ready to begin logging data from instrumented lactating fur seals for monitoring attendance patterns and trip durations.
11. In the last weekly census of phocids on the Cape, we recorded 44 elephant seals and 26 Weddell seals; crabeater and leopard seals were not seen during this census.
12. We have recorded eight tagged Weddell seals that have returned from previous years and three elephant seals tagged as pups in years past.



Weather:

13. The weekly mean temperature for the first two weeks of November was -1.7°C for both weeks. Our weekly mean this week was -2.2°C (± 1.6). The high for the week was 1.1°C and the low was -5.4°C . Total precipitation this week was 0.02 inches. Easterlies dominated this week with 51.6% of measured winds having an easterly component. The next most frequent wind direction was westerlies (40.3%). Mean wind speed was 19.0 mph with maximum of 47 mph. Mean solar radiation this week was 10,237 watts per square meter. Sunrise and sunset are 03:32 and 21:59 respectively as we continue to gain an hour of sunlight every 10 days.

Camp:

14. The below freezing temperatures and accumulation of snow of the past week has resulted in snow piles as high as three meters adjacent to some of the walkways around camp. The snow pile near our backdoor was so high after the last storm that we had breakdown the crest in order to shovel out drifting snow around the back door of our main hut.
15. Our fresh water is still completely frozen, so we have been using snow for washing plus bringing frozen water barrels into the hut to thaw as needed. This week we brought in our 3rd full barrel. We are averaging one new barrel every week.
16. We have continued to unpack totes of food and equipment left overwinter as well as our 2014 opening cargo and organizing the supply hut shelves. Most cargo offloaded at the landing beach at camp opening is now in camp with the primary exception of two fish boxes containing our new Weatherport tent and window covers.
17. We dug out our smoker box and two small turkeys are thawing in anticipation of Thanksgiving!

Submitted by AMLR researchers currently thawing at the Cape Shirreff field station, Livingston Island. Images taken by Mike Goebel and edited by S. Sexton.

