

U.S. Antarctic Marine Living Resources Program

2011-2012 Weekly Field Reports

Cape Shirreff, Livingston Island

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Science Report

Seabirds

1. In the just over two and a half weeks since the mean clutch initiation of gentoo penguins, our reproductive study nests have had a 12% failure rate. Of the chinstrap penguins in the reproductive study 86% have completed clutches, 2% have only one egg, and 5% have not yet laid. 7% of chinstrap penguin nests in the study have lost eggs.
2. We have continued to resight known-aged penguins. 34 known-aged gentoo penguins initiated clutches, 76% have complete clutches and 15% of these nests have failed so far. There are 58 known-aged chinstraps currently breeding, 62% have complete clutches and 17% have failed so far.
3. On 29 November we conducted the annual nest census of chinstrap penguins. The number of chinstrap nests has decreased 26% from the previous 14 year mean.
4. Many brown skuas have begun building nest bowls and the first egg was seen on 1 December. We are still seeing fights over feeding territories.
5. There are currently 41 gull nests with eggs around the cape.

Pinnipeds

6. There is one last remaining female elephant seal suckling a pup. She is not the tagged female that typically arrives late to pup. That female we have not observed this year. We have, however, recorded our first juvenile elephant seal tagged as a pup at the Cape. She is a two-year-old tagged on 9-Nov-2009, the day she weaned. We also observed a large sub-adult male tagged by some other research program.
7. At the last Phocid census of the Cape we had a 24% increase in elephant seals as more and more juveniles arrive to molt. Weddell seal numbers were down 60% over the previous week. We did not observe any leopard or crabeater seals this week.
8. At the last census of fur seal study beaches on 4 Dec we recorded a total of 423 pups (415 live and 8 cumulative dead). This is 4.5% fewer pups than for the same date last year. Total pup production estimates, however, will not be finalized until early January after all pups are born.



9. We began fur seal captures for attendance and foraging behavior on 3 December. As of yesterday, 4 December we have completed five captures of females that have VHF radio transmitters for CCAMLR trip duration protocol. All females have been captured within 0-2 days postpartum.
10. Our VHF receiving stations (2) are recording and we downloaded our first data from them. Thus far no females we have instrumented have departed for a first trip to sea.
11. We have recovered one over-winter ARGOS PTT and four geolocating light-temperature archival tags (Nano-LAT). All nano-LATs appear to have worked; however, one had I/O terminals that were badly worn down. It was difficult to communicate with the instrument but we finally got a good connection to download the archived data.
12. Thus far only 41.6% (79/190) of our tagged female population has returned to Cape Shirreff.

Weather

13. This week has been dominated by calm foggy weather with two days of significant precipitation in the form of rain. Mean wind speed was 14.5 mph with maximum wind gust of 60.0 mph. Winds were mostly westerlies. This was the second week of above zero mean weekly temperature (1.1° C). The high temperature for the week was 11.9° C and the low was -0.9° C. Total precipitation this week was 0.32 inches. Sunrise and sunset are now 03:07 and 22:32. Mean daily solar radiation this week was 13,603 watts per sq. meter.

Camp

14. The seabird and pinniped research is in full swing and has kept us all very busy with collecting and entering data. Camp is running smoothly but we spend most of our day out on the Cape monitoring our study sites. Being out on the Cape all day is always a welcomed relief from the allergy-inducing mold and mildew in camp.
15. We took advantage of some weather that was not suitable for fur seal captures to get some of our last remaining cargo still secured at the landing beach to the camp. There is still enough snow to use sleds to move cargo from the beach to camp. On the same day (2 Dec) we dug out a place on our back deck to set up our outdoor grill.
16. We have not seen any ships and have only a few large icebergs within sight of camp. The Cape is still mostly covered in snow but the warmer weather has diminished it substantially.





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