

Seabirds:

1. Chick hatching is complete for both our chinstrap and gentoo reproductive study nests. The failure rate of the gentoo reproductive study nests has gone up since last week to 24%, 26% are brooding one chick, and 50% are brooding two chicks. In the chinstrap penguin reproductive study 28% of nests have one chick, 43% have two chicks, and 29% have failed.
2. Of the nests of known-age chinstrap penguins, 32% have one chick, 28% have two chicks, and 40% have failed. This week the failure rate of known-age gentoo penguin nests has increased from 35% to 38%.
3. On December 9 we began weighing chinstrap chicks of all reproductive study and known-age breeder nests. The mass, taken when chicks are 21 days old, is used as a measure of chick condition before they crèche.
4. On January 6 we recovered six satellite transmitters and three Time Depth Recorders from our gentoo deployment. These data await analysis.
5. On January 9 we deployed six satellite transmitters and three Time Depth Recorders (TDRs) on chinstrap penguins that are brooding chicks. The satellite transmitters will be used to determine where the penguins forage and the TDRs give profiles of diving behavior. We will recover these instruments after one week of deployment.
6. We began diet sampling on chinstraps and gentoos this week. We follow adults returning from foraging trips back to their nests to verify that they are breeders and capture them before they feed their chicks. Samples are collected using the wet-offloading technique. Data on total mass of stomach contents, diet composition, and length and sex-frequency of krill are recorded for each stomach sample.
7. Most of the skuas are nearly done hatching. Currently, five pairs have failed, five pairs have one chick, seven pairs have two chicks, and two pairs are still incubating eggs.
8. It has been an exciting week with lots of new interesting penguins visiting the cape. The last sighting of the rockhopper penguin was on 3 January. In addition to the rockhopper we had two juvenile emperor penguins visit on 3 January, one of which stayed for two days. We also saw a chinstrap during beach sweep on 8 January that had very abnormal plumage. Its entire body was black with the exception of its face being the usual white. It appears to be a melanistic chinstrap penguin. Melanism is an abnormal deposit of dark pigments in various organ or tissues and is rarely seen in penguins. It appeared to be a one year old female. We hope she becomes a regular visitor and perhaps a breeder in following years.

Pinnipeds:

9. We recovered one of our GPS/time depth recorder (GPS-TDR) instruments from a female that lost her pup. We currently have five GPS instruments at sea collecting data on foraging locations. To date we have collected such information on 37 trips for six females since mid-December.
10. Only 23 of our 29 attendance study females have completed six trips to sea. Two attendance females have lost their pups (likely to leopard seal predation) but both of them had already completed six foraging trips to sea.



11. On January 6 we took the first CCAMLR pup weights sample. A month after the median day of pupping we weighed 100 Antarctic fur seal pups. We will keep collecting weights every 15 days.
12. We continued identifying the sex and collecting DNA of tagged females' pups. We have identified the sex and collected DNA on 57% of tagged females' pups. Mortality rate since arrival of leopard seals has increased to 6.5%.
13. Over-winter survival and natality rate of our adult tagged female population for 2010/11 is 80.6% survival and 80.5% natality. Last year survival and natality were 80.0% and 78.1%, respectively.
14. On our weekly phocid census of Cape Shirreff we counted 111 southern elephant seals, 36 Weddell seals, 19 leopard seals and only one crabeater seal.
15. Daily tag re-sights continued this week. We have re-sighted only 89 fur seals tagged as pups in previous years. To date we have seen two yearlings, two 2-year-old and three 3-year-old fur seals tagged in previous years.
16. Fur seal diet sampling continued this week with the collection of ten more scats, bringing our total to 40.
17. To date we have tagged seven previously untagged leopard seals and have observed a total of 15 tagged leopard seals. All but two of the animals are females.

Weather:

18. The weather this week on Cape Shirreff was foggy. We had a high of 4.9° C and a low of -0.6° C. The mean temperature was 12.1° C. Mean wind speed for the week was 10.1 mph and the max gust was 47.0 mph. Most wind this week was from the west. We had 0.3 inches of precipitation this week.

Camp:

19. This week we dedicated time to our first response medical emergency equipment. We looked through all our first aid medical supplies and discussed their use and functions. Then we ran a drill over the phone with Medical Advisory System (MAS). It was really useful to have everyone familiar with the equipment and with the MAS.
20. We have been busy working on penguins as we start the analysis of the stomach contents. So we all have been looking at a lot of krill.
21. We also took the chance for some learning time, as we found a dead penguin and performed a gross necropsy. It was useful to refresh some anatomy and better understand the animals we are working with. For Nicola, it was a unique chance to conduct a post-mortem exam on a new species.
22. The ship with resupply, friends and new camp mates is schedule to arrive on 16 January. We are excited to see our friends and welcome four more people to the camp. It will be tighter but it will be fun!



Submitted by AMLR staff currently residing at the Cape Shirreff field station, Livingston Island.