

Seabirds:

1. In the first week since gentoo penguin peak hatch 90% of the reproduction study plots have at least one chick, 10% have failed. In the second week since peak chinstrap hatch, 59% of the chinstrap penguin reproduction plots have hatched at least one chick and 41% have failed.
2. We continue to monitor known-age penguins. Of the 27 known-aged gentoo penguins that initiated clutches 59% have hatched at least one chick, 4% continue to incubate and 37% have failed. Of 68 known-aged chinstraps that have initiated clutches 34% have hatched at least one chick and 66% have failed.
3. On 7 January we deployed radio transmitters on breeding chinstraps to measure foraging trip durations during the chick-provisioning period.
4. On 6 January we began diet sampling and collected samples from five nesting chinstrap penguins using the wet offloading technique. Data on total mass of stomach contents, diet composition, and length and sex frequency of krill were recorded for each sample. To date, we have collected 5 diet samples from chinstrap penguins and five from gentoo penguins. Chinstrap penguin diet samples have consisted almost entirely of Antarctic krill (*Euphausia superba*) with trace amounts of fish. Gentoo penguin diet samples were a mix of Antarctic krill and fish. To date, we have found otoliths from the species *Gymnoscopelus nicholsi*, *Lepidonotothen kempii*, *Pleurogramma antarcticum*, and an unknown species that was quite abundant in one gentoo penguin sample.
5. Brown skuas have started to hatch this past week. Of the eighteen pairs of brown skuas that we are monitoring, eight have at least one chick, six are still incubating partial or full clutches and four pairs have lost their eggs.

Pinnipeds:

1. Our five GPS/Time depth recorder females for monitoring foraging range and behavior continue to collect data. We have collected data on 20 foraging trips. However, one of our study females just completed a 13-day trip. It is the longest trip for any of our attendance study females. Her pup though obviously stressed survived the long trip.
2. Only nine of our 29 CCAMLR attendance females have completed six trips to sea. However, only two attendance females lost their pups, most likely to leopard seal predation. Last year, by this date, six females had lost their pups. Predation by Leopard seals appears to be lower this year and our sighting data of leopard seals confirms we have fewer this year.
3. Mean trip duration is longer than last year poorer than average foraging conditions for 2009/10. Trip durations are as follows: first trip: 3.4 d (s.d.=1.5, n=29), second trip 3.5 d (s.d.=1.5, n=29), third trip 3.7 d (s.d.=1.4, n=29), and fourth trip 3.7d (s.d.=0.9, n=26).
4. All the pups of the 18 females that have completed six trips to sea have been weighed according to protocol.



5. We also took our first sample of CCAMLR pup weights on 5 January. We will continue to collect weights on a sample of 100 pups every two weeks until March.
6. This is the first week we did not have any tagged adult females arrive on our study beaches that we have not previously seen this season. Daily tag re-sight censuses for adult females indicate an 80.5 % return rate from last year (the lowest rate of return in 12 years of data collection). Natality for adult tagged females was also low at 77.6%. We now have 92.5% of all the pups of tagged females sexed and we have collected DNA samples from 126 pups of tagged females.
7. Fur seal diet protocol requires collecting 10 scats each week for analysis of fish bones, squid beaks, and krill carapaces. This week we collected our fourth sample. To date 40 scats have been collected. All samples collected have been predominantly krill.
8. Return rate of tagged juvenile fur seals is also down. We have re-sighted only 76 fur seals tagged as pups in previous years. We have not seen any tagged yearlings and we have seen only one two-year-old.
9. We have been conducting a daily census of elephant seal wallows and haulouts. Just this morning we recorded the arrival of our first elephant seal deployed with a CTD-PIT instrument last year and will re-capture and retrieve the instrument later today.
10. Leopard seals continue to arrive although to date we have only seen seven tagged seals from previous years and we tagged one other for a total of eight.
11. We continue to see Crabeater seals occasionally hauling out on the Cape.

Weather:

12. This week we had several very cold, windy days. Overall for the week, the winds averaged 15.1 mph with 37 mph as the highest recorded wind. Easterlies dominated all week. Precipitation for the week was 1.5 inches bringing the season total to 15.9 inches. The average temperature was 1.6° C with a high of 11.1° C and a low of -1.8° C. This was our lowest temp since November.

Camp:

13. Today we had a Chilean ship visit the Cape to drop off three Chilean researchers studying microbial ecology.

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

