



**Sit. Rep. #6
17 December 2007
US AMLR Field Station
Cape Shirreff, Livingston Island, Antarctica**

Seabirds:

1. In the four weeks since mean chinstrap clutch initiation, 57% of nests in our reproductive study have failed. In the two weeks since mean gentoo clutch initiation, 42% of nests in our reproductive study have failed. Despite the high overall failure rate, the number of nests that have failed this week is similar to rates observed in previous years.



2. Of the 18 known aged chinstrap penguins that have nested this year, 13 have failed and five remain on eggs. Of the 11 known aged gentoo penguins that have nested this year, five have failed and six remain on eggs. We continue to record observations of known aged penguins that visit the colony.

3. We conducted the annual gentoo nest census on December 10, one week after the peak of egg laying.

We counted 610 nests, 22% less than last years count of 781 and 27% less than the previous 10 year mean of 832.

4. In the past two weeks we have weighed and measured both eggs in 50 chinstrap and 50 gentoo nests. Mean egg masses were slightly higher than the previous 10 year mean for both species.

5. Of the 24 pairs of brown skuas that have been observed attending nesting territories, 14 have complete two-egg clutches and five have laid their first egg.

6. Approximately 30 pairs of kelp gulls have initiated clutches in nests located around Cape Shirreff. Antarctic terns and blue eyed shags have also been observed breeding around the Cape.

Pinnipeds:

7. On Friday we completed the 28 fur seal female/pup captures planned for attendance (visit/trip duration) studies. Fourteen of the 28 females have departed on their first foraging trip after the perinatal visit (females stay on shore nursing their pups for approximately a week after giving birth). Eight of these females have completed their 1st trip. Mean trip duration was 4.38 days (SD = 1.57, min = 0.71 days, max = 5.52 days). Two females have departed on their second trip.

8. We have calculated the mass on the day of parturition for our CCAMLR attendance females (50.0 ± 5.3 kg, $n=29$). This is slightly greater than last year's females (48.4 ± 3.9 kg, $n=23$). Mean pup birth mass was 5.6 ± 0.7 kg ($n = 29$) which was similar to last year (5.8 ± 0.8 kg, $n = 23$).



9. So far, 77.7% of our tagged female population (220) has returned to Cape Shirreff. This is less than last year at this time (82.6%), but females continue to arrive. The natality rate, 89.5%, is slightly greater than last year for the same date (87.6%).

10. Fur seal pup production was 1589 on the 15th of December. Pup production this year is 83.8% of last years total at this time. Cumulative pup mortality is 3.7%.

11. Fifty-two fur seals tagged as pups have been observed thus far this season. More arrive every day. Once again the 1999/2000 cohort is dominating, making up 34.6% of the resighted seals.

12. A juvenile elephant seal with a brand and an orange all-flex flipper tag has been seen multiple times this week.

13. Sunday we saw a leopard seal that had been tagged at Cape Shirreff in a previous year.

Cape Shirreff Weather for the Week:

14. Yet another blustery week here at Cape Shirreff. Throughout the week, we have had westerlies averaging 13mph. Gusts were highest on Friday reaching 52 mph. Most of the really windy times have been in the evenings and at night, with things typically a bit calmer during the day, which has made work on the seal and penguin projects go a bit smoother.



15. Temperatures have been warmer this week, averaging 1.2 degrees Celsius with a high of 6.4 degrees Celsius and dropping to -2.8 degrees.

16. Precipitation has been very scant this week. Only 0.07 inches was measured on Friday. There were some snow flurries, but no accumulation. The snow pack is definitely receding with more and more ground becoming visible each day.

Field Station Notes:

17. The holidays are fast approaching, and the camp hut is looking very festive with decorations and a string of lights. The first batch of Christmas cookies was made and promptly devoured, so we'll have to try that again.

18. With the moments of calm weather, we were able to rig the rain water collection gutters and barrel system. Now it's a mixed wish for a little more precipitation to secure our water supply, but not too much to make the animal work too difficult. Gentle rains, only at night would be ideal.

19. As we have more computers and other electrical equipment in use in the hut, it has put a bit of a strain on our 12 volt system despite the inputs from the solar and wind generators. We have started to upgrade some of the wire runs, which will lead to better performance.

Report submitted by AMLR researchers currently rain-dancing at the Cape Shirreff field station on Livingston Island. These reports are posted at <http://swfsc.noaa.gov/aerd-field.aspx>. Photos by M. Goebel (NMFS/AERD).