

**Science Report**

Seabirds

1. In the just over one and a half weeks since the mean clutch initiation of gentoo penguins our reproductive study nests have had a 10% failure rate. Of the chinstrap penguins in the reproductive study 74% have completed clutches, 13% have only one egg, and 8% have not laid. 5% of chinstrap penguin nests in the study have lost eggs.
2. We have continued to resight known-aged penguins. 27 known-aged gentoo penguins initiated clutches, 66% have complete clutches and 1% of these nests have failed so far. There are 56 known-aged chinstraps currently breeding, 57% have complete clutches and 7% have failed so far.
3. Peak clutch initiation date for chinstraps occurred on 21 November. On 22 November we weighed a sample of adult chinstraps at peak clutch initiation along with measuring their first egg. These data await analysis.
4. We censused gentoo penguins on 25 November. There were 829 nests, only 5 nests shy of last year's census. This count is 1% above the previous 14 year mean.
5. On 26 November we measured gentoo egg 1 and egg 2 weights. These data await analysis.
6. On 27 November we measured chinstrap egg 1 and egg 2 weights. These data also await analysis.
7. Many brown skuas have begun building nest bowls, however no eggs have been seen yet. We are still seeing fights over feeding territories.
8. There are currently 25 active gull nests on the cape.

Pinnipeds

9. All elephant seal pups have now been weaned and the last remaining two females have left for sea. We have tagged and collected DNA from 56 pups.
10. We surveyed Punta San Telmo west of Cape Shirreff where in previous years some elephant seals have bred. However, there were no pups and only a few sub-adult males and one adult male. This confirms the total pup production for Cape Shirreff ASPA to be 82.



11. Our last census of fur seals on the U.S. AMLR study site was yesterday, 27 Nov. At that time we had 345 adult territorial males, 159 females, 62 live pups and one dead pup.
12. We have three females on shore that have returned with overwinter instruments. One of these is an ARGOS PTT transmitter and the other two are geolocating light sensors. Only one has given birth. The other two are pregnant but have not given birth yet. We plan to capture the one that has given birth later today.
13. We have recorded 11 tagged known-age fur seal males to date.
14. We saw two tagged elephant seals this week (A2052 orange allflex and 245 yellow/green Dalton Jumbo roto). These were tagged elsewhere and were not tagged by the U.S. AMLR program.
15. In order to get ready for the perinatal attendance females we have concluded range tests of our two VHF receiving stations for monitoring trip duration of fur seals. Both stations are now ready to begin logging instrumented fur seals.
16. We conducted our first Cape-wide Phocid census on 23 Nov. Juvenile male elephant seals are arriving every day and numbers continue to increase. We had 138 elephant seals, 41 Weddell seals, no leopard seals and one crabeater seal.

## Weather

17. The weather this week was generally very pleasant with little wind and for Thanksgiving day we had a full day of sun. The mean temperature for the week was 1.1°C with a high of 10.7°C and a low of -4.4°C. Total precipitation this week was only 0.05 inches. Most winds this week were from the east. Mean wind speed was 9.1 mph with a maximum wind gust of 37 mph. Mean solar radiation this week was 18,565 watts per sq. meter.

## Camp

18. We celebrated Thanksgiving with a traditional dinner with all the fixings of fresh baked bread, cranberries, pumpkin pie and some of the last of our softer fresh produce (lettuce, fresh broccoli, cauliflower and tomatoes).



19. We dug out the rest of our fresh water supply which was mostly buried in a big snow drift. We were able to return a 55 gallon drum of frozen water that we keep in our kitchen and return it to the front deck. However, because of the holiday and colder temperatures we couldn't keep up demand with melted water in the barrels outside and had to bring a barrel inside again.

20. We saw our first whales on 22 Nov. They were pretty distant from shore and we were unable to confirm ID.
21. We were unable to log on to download email this week and was told by our provider that it was a website problem and to keep trying. It took two days before we could successfully log on and download email. Fortunately by Thursday morning our email was working again.
22. This morning the R/V *L.M. Gould* is scheduled to arrive at Copacabana Field Station on King George Island to pick up Sue Trivelpiece. They will then head north to Punta Arenas. The entire Cape Shirreff crew is very grateful to the Captain and crew for their assistance in opening the Cape Shirreff field station and wish them fair seas for the return to P.A.



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