



**Sit. Rep. #12
28 January 2008
US AMLR Field Station
Cape Shirreff, Livingston Island, Antarctica**

Seabirds:

1. One chinstrap penguin nest (1%) of our reproductive study has crèched this week. It is expected that most of the 21% of our reproductive study nests with chicks will crèche in the upcoming week. The proportion of nests that have failed is not expected to rise much above the current proportion of 78%. Of the gentoo penguins in our reproductive study, 40% are brooding chicks, 2% remain on eggs and 58% have failed.

2. In the past week we continued to weigh chinstrap chicks in our reproductive study when they reached 21 days of age. We have also begun to weigh gentoo penguins at 21 days to measure chick condition before crèche.

3. This week we deployed eight Time Depth Recorders (TDRs) and eight satellite tags (PTTs) on nesting gentoo adults and five TDRs on chinstrap adults. These instruments will measure foraging locations and diving patterns of penguins that are brooding chicks. In the first deployment, brooding chinstraps were observed foraging at depths up to 78 meters.



4. To date, we have collected 20 diet samples from chinstraps and 10 from gentoos. Chinstrap diet samples have consisted almost entirely of Antarctic krill (*Euphausia superba*) with trace amounts of fish. Gentoo samples were mainly composed of fish including the species *Gymnoscopelus nicholsi* and *Trematomus newnesi* with varying amounts of krill.

5. Of the 20 pairs of brown skuas that initiated clutches, five are currently brooding chicks and thirteen have failed. We will begin to band skua chicks in the upcoming week.

Pinnipeds:

6. The last of our 28 CCAMLR attendance study females completed her sixth trip to sea this week. In total, 27 of the original 28 females completed six trips. Mean trip duration for the first six trips was 3.7 days (s.d.=1.3, Max=8.3, Min=0.7, n=165). Mean trip duration is greater than last year's six trip mean of 2.8 days (s.d.=1.0, n=127).

7. In the last week, we lost three more attendance pups. In total we have lost seven attendance pups from the original 28. Six of the seven lost are thought to be due to leopard seal predation.

8. This week we deployed GPS/time depth recorders on three females to complete the second round of deployments. We recaptured two of the round 2 foraging study females to recover instruments late in the week.

9. We continued identifying the sex of tagged females' pups. We have identified the sex of 88.0% of tagged females' pups. To date we have collected 119 DNA samples from pups.

10. Fur seals tagged as pups in previous years are continuing to arrive. A total of 106 known-age individuals have been seen so far on the cape. Thus far, of the 500 per annum tagged we have seen the following percent return for the last 10 year classes: 1997, 1.2%; 1998, 1.2%; 1999, 5.8%; 2000, 2.4%; 2001, 4.4%; 2002, 2.2%; 2003, 0.8%; 2004, 0.0%; 2005, 2.2%; and 2006 1.0%.



11. Fur seal diet sampling continued this week with the collection of ten more scats, bringing our total to 60.

12. We instrumented two newly molted southern elephant seals with instruments that will record location, depth of dives, temperature, and salinity over winter.

Cape Shirreff Weather for the Week:

13. The week started out with a bang for wind. Gusts to 55mph were recorded on Sunday the 20th. That kept the average up to a moderate 17.7mph for the duration. Almost 85% of the recorded wind was from the West.

14. A warm week on average, compared to previous weeks during the season. It was 2.6 degrees C on average and with a high of only 4.8 degrees, the conditions were not too variable throughout the week.

15. Precipitation for the week has been 0.71 inches. Nearly a quarter of an inch fell on Sunday, and almost 0.2 inches on Friday as the wet days of the week. The season total has climbed to 2.14 inches.



Field Station Notes:

16. Camp is pretty cozy with eight on station. The big Weatherhaven tent is up and provides some additional space for bunking and storage, and the Chileans have graciously provided a bunk too.

17. The *R/V Yuzhmorgeologiya* is scheduled to

return to Cape Shirreff on February 4th. We are looking forward to seeing the “Yuzhmor” team.

18. Ice cream flavor of the week was chocolate peanut butter swirl made by Kevin. We haven't had as much ice cream this year as our primary ice cream maker stayed home. We all miss him and his ice cream.

Report submitted by AMLR researchers currently consuming ice cream 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).