



**Sit. Rep. #9  
7 January 2008  
US AMLR Field Station  
Cape Shirreff, Livingston Island, Antarctica**

### **Seabirds:**

1. The majority of chinstrap penguin nests in the colony have hatched. In our reproductive study, 22% of nests have hatched, 7% remain on eggs and 71% have failed.
2. Gentoo penguin nests have begun to hatch, the first gentoo chick was observed on January 3rd. This is almost one month later than the first gentoo chick observation of 2007. To date, 4% have hatched, 48% are incubating eggs and 48% have failed.



3. Of the 19 known aged chinstrap nests in the colony, two have hatched and 17 have failed. Of the 13 known aged gentoo nests in the colony, two have hatched, five remain on eggs and five have failed. We continue to resight bands of known-aged birds that visit the colony, and on 5 January we observed a return visit of a chinstrap penguin that was banded as a chick at Cape Shirreff in February 2007.

4. On 6 January we began deploying radio transmitters on breeding chinstraps to measure foraging trip durations during the chick-provisioning period. We will continue to deploy these transmitters in the upcoming week.
5. Brown skuas have also begun to hatch. Of the 20 pairs of brown skuas that initiated clutches, three have begun to hatch, 10 are incubating eggs and seven have failed. We continue to collect samples of skua excrement to qualify prey species during different stages of the breeding period.

### **Pinnipeds:**

6. The five fur seal females equipped with GPS/Time Depth Recorders (round 1

deployments) continue to collect data. So far we have collected data on 17 trips (two females have completed four trips, and the other three have completed three trips).

7. All 28 attendance females have completed at least three trips to sea. Average trip duration for the first trip was 4.1 days (min: 0.71, max: 8.33, SD = 1.9), second trip was 4.1 days (min: 1.33, max: 6.85, SD = 1.4), and third trip was 3.4 days (min: 0.90, max: 6.04, SD = 1.3). Twenty two females have completed four trips and five have completed five trips. Only one female has completed six trips, and her pup was weighed after she departed on her seventh trip according to protocol. This week one of our attendance females lost her pup. The pup and mother were often both seen ashore, but rarely together the last two visits and the pup was losing weight.



8. On 4 January, we assisted our Chilean colleagues with the collection of the first CCAMLR pup weights.

9. This week we saw a few tagged females for the first time this season, most of which were not pregnant. Daily tag re-sight censuses for adult females indicate an 84.5% return rate from last year (compared to 88.4% for adult females in 2006/07). The natality rate of 84.9% for adult tagged females is also lower compared to 88.4% last year. We now have 69.6% of all the pups of tagged females sexed and we have collected DNA from 113 pups of tagged females.

10. We just started the third week of fur seal diet studies. To date we have collected 24 scat samples, all of which have contained krill.

11. We have seen 81 seals that were tagged as pups return this season. Daily tag re-sights indicate an increasing number of young seals that were tagged as pups are arriving. This week we have seen three new two-year-olds.

12. This week two leopard seals that had been tagged previously at Cape Shirreff have been seen on our study beaches.

13. A new tagged elephant seal was seen this week. She was tagged two years ago when we deployed a satellite relay data logger on her after she molted. She also returned last year and we were able to recover the instrument. This season we have seen eight tagged elephant seals, five of which were tagged at Cape Shirreff in previous years.

### **Cape Shirreff Weather for the Week:**

14. The past week has continued warming as summer advances. The average temperature was 2.1 degrees Celsius, and for the first time this season, the low temperature did not drop below freezing. A scant 0.1 degrees Celsius was the weekly low and the high was 5.7 degrees.

15. As usual, the winds were variable, ranging from periods of calm to gusts of 45 mph. The weekly average was 11.8 mph, mostly from the west.

16. Sunday the 30th was wet, with more than a quarter of an inch of precipitation measured. Throughout the week additional rain fell, adding up to 0.42 inches overall, marking the highest weekly accumulation since the beginning of the season.

### **Field Station Notes:**

17. The big event of the week was the New Year celebration with the Chileans. We hosted a costume party to ring in the New Year. It is amazing what one can devise out of cardboard, plastic bags, duct tape, and creativity.



18. As the majority of the snow has melted away, the opportunity to do some routine camp maintenance is upon us. Preparations for painting are in the works. The huts do take quite a beating over the winter from the wind and snow.

19. Soon, the vessel-based component of the research program will commence. We all wish the ship staff safe voyages as they come to Punta Arenas to start the season.

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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).