

**Sit. Rep. #2**  
**US AMLR Field Station**  
**Cape Shirreff, Livingston Island, Antarctica**  
**13 November 2006**

**Seabirds:**

1. Plots to study the reproduction of chinstrap and gentoo penguins are established. These plots will be checked daily for the rest of the season until the chicks crèche. This allows us to record the timing of breeding across the colony as well as reproductive success. We also record the daily attendance patterns of adult chinstraps in these plots by resighting the banded pairs of birds.
2. 88% of gentoo penguins in the reproductive study have laid completed clutches. 6% of nests have failed. One pair laid a third egg to replace one that was lost soon after laying.
3. The first chinstrap egg was seen on 10 November. By 12 November, 6% of chinstrap penguin nests in the reproductive study initiated clutches.
4. We have begun a demographic study that is based on resighting all penguins who were banded here as chicks when they return to the colony. We will follow the breeding activities of these known-aged birds daily and determine their reproductive success. Currently there are 13 known-aged gentoo penguins incubating eggs. This number is down from last year when 17 known-aged gentoo penguins initiated clutches.
5. Brown skuas are reestablishing pair bonds and have been observed stealing eggs from gentoo penguins and on nesting territories. One territory was visited on 10 November and there were numerous empty nest bowls. Checking all territories for reproductive activity will commence this coming week.
6. A kelp gull nest was discovered on 10 November with a completed clutch of three eggs. We will monitor this nest and the others that we find until the chicks fledge in February.

**Pinnipeds:**

7. We continue to monitor elephant seal pup production and weaning with a daily census. As of yesterday there were 11 weaned pups and 3 pups still suckling. All weaned pups have been tagged. Elsewhere on the Cape we have observed more juveniles arriving.
8. We conducted our first fur seal census yesterday and recorded 471 adult territorial males on the breeding beaches of the AMLR study which has an annual pup production of approximately 2200 pups. Our first adult female arrivals (n=4) were observed on Copihue on 10 November. This is earlier than we have ever recorded females arriving at Cape Shirreff. All fur seal breeding beaches are free of snow.
9. We set up one of our VHF receiving stations this week in anticipation of deploying ~30 transmitters beginning the first week of December. We will begin testing transmitters and doing

range tests to map the coverage each of our two stations records.

10. To date we have recorded five tagged male fur seals. Two from the 1997 year class appear to have set up a breeding territory. We have also recorded one male on territory that was tagged as a pup in 1991/92 at Seal Island.

11. On 10 November we surveyed most other beaches on the Cape for female arrivals including Loberia and confirmed that the four females we sighted on the AMLR study site are the first females to arrive.

**Weather (6-13 Nov):**

12. Mean temperature for the week (measured every second, averaged and recorded every 15 minutes) was 0.8 degrees Celsius. The high was 8.6 and the low was -2.0. Average wind speed for the week was 13.2 mph (the maximum was 46.0mph). Total precipitation was 0.35 inches most of which fell on Saturday. Our solar radiation sensor recoded Tuesday as our sunniest day with 20,251 watts per meter squared. We lost considerable amounts of snow cover this week and we no longer need skis to get around. We are currently have wind gusts to 50mph from the southwest.

**Station:**

13. The station is fully operational now. It is still too cold to rely on our gutters system of water collection so we have been keeping a barrel of water in the kitchen for cooking, washing, and drinking. However, next week our stored water supply should be thawed enough to revert to using our stored water outside.

14. On 10 January Cory Champagne and Mike Goebel were on the hill behind the station installing our VHF receiving station for monitoring presence and absence of fur seals when we heard a helicopter in the distance. We never did see it but perhaps acoustic conditions were suitable for hearing a helicopter working from Greenwich Island or the Bransfield.

15. We did not mention in our opening sitrep how grateful we are to the closing station field team last March for doing such an outstanding job closing the station. It has made opening the station this year exceptionally smooth.

16. The *R/V LM Gould* is scheduled to visit Cape Shirreff in two days (15 November) to drop off Birgitte McDonald, cPhD, UCSC (pinniped researcher). We heard from Palmer Station that the *Gould* left on time yesterday morning from Punta Arenas.

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*Submitted by AMLR researchers currently residing at Cape Shirreff.*