

**Sit. Rep. #8**  
**US AMLR Field Station**  
**Cape Shirreff, Livingston Island, Antarctica**  
**26 December 2006**

**Seabirds:**

1. Gentoo penguins have completed hatching. Of our reproductive study nests 36% of the nests currently have one chick, 52% of nests have two chicks, and 12% of the nests have failed. The number of chicks per nest is already lower than the number of chicks that crèched per nest last year.
2. The first chinstrap penguin chicks were seen on 19 December and the first chinstrap yearling banded at Cape Shirreff was seen on 24 December. So far 17% of the reproductive study nests have not begun to hatch, 70% have hatched one or two chicks, and 13% of the nests have failed. In addition to the reproductive study for chinstraps we also monitor 50 nests without disturbing the birds to get exact lay and hatch dates. These non-disturbance sites have a similar failure rate of 12%.
3. Of the nests of known-aged gentoo penguins 19% have one chick, 63% have two chicks, and 19% have failed. The failure rate of known-aged chinstrap nests has increased since last week to 33%. So far 25% of the known-aged chinstraps nests have not begun to hatch and 42% have initiated hatching.
4. Of the 25 brown skua pairs attending territories on Cape Shirreff 16% have not laid eggs yet this year. Six nests failed and one pair lost one egg during the wind storm on 18 December. The one pair that lost its clutch earlier this year has relayed. Another new territory was discovered this week on Playa Media Luna. They are currently incubating one egg. The female in this new pair is 7 years old and was banded at Cape Shirreff. On 20 December we hiked to Punta Oeste where we found two skua pairs each incubating two eggs.
5. We are following 57 kelp gull nests on Cape Shirreff. We found five empty nest bowls on Punta Oeste, but no active nests. 18 of the kelp gull nests on Cape Shirreff are not in a colony. Of these 3% have failed and at 44% of them chicks have been observed. There are 38 nests in a colony at the base of Cerro Toqui. Of these, chicks have been observed at 45% of the nests.

**Pinnipeds:**

6. We completed our first round of ARGOS satellite-linked transmitters. We are now collecting data on five lactating female fur seals for foraging locations and range. All five females were also equipped with time depth recorders that have external temperature probes to measure thermocline depth at location. One female has already completed two trips, three others have completed one trip and one is still on her first trip.
7. Twenty-three of the 34 attendance females we have instrumented with VHF radio transmitters have completed their first trip to sea. Four females have not yet left on their first trip. Twenty

have completed two trips to sea and five have completed three trips. One female is on her fifth trip to sea.

8. The rate of pup production has decreased considerably and only a few pregnant females are recorded every day. As of the last census (yesterday) there were 2058 pups counted on our last census (23 Dec). Pup production is 0.6% more than for the same date last year.

9. The number of new tagged females arriving for the first time this week has decreased, with only one tagged female arriving since 20 December.

10. Of the adult tagged females population observed last year on our study beaches (n=225), 87.0% have been resighted this year thus far and 88.3% of those gave birth. Over-winter return rate is greater than last year for the same date. Natality is also slightly higher than last years for the same time period.

11. We have seen 60 fur seals tagged as pups since tag resights started in mid-November. Thirty six of them have been from the 1999/00 (n=21) and 2001/02 cohorts (n=15). Only one yearling has been sighted thus far. Twelve of the 60 are offspring of tagged females.

12. On 18 December we recovered an over-winter PTT from a yearling that had been instrumented in March 2005 before being weaned last April.

13. Two southern elephant seals have returned with ARGOS satellite linked transmitters from over winter deployments. Both were located just today (26 Dec). We will recover the instruments soon.

#### **Weather:**

14. We had a beautiful day of full sun for Christmas but we are now experiencing an easterly wet storm with moderate winds. Otherwise the week had calm, dry weather. Mean temperature was 2.0C with a high of 8.8C and a low of -0.3. Winds were mostly north and east with a mean of 9. mph (max 37.0).

#### **Camp:**

15. We repaired a section of the gutters on our main hut that was damaged by the 17 December storm. Our water collection system is now back to full capacity.

16. We cancelled our Saturday dinner get together with the Chileans this week and instead the Chileans hosted their traditional Christmas eve party and included dinner with it. We opened gifts at midnight. Christmas morning we opened our gifts from family and friends back home and to each other before having homemade cinnamon rolls for breakfast. Later we hosted a dinner and had our Chilean neighbors over for dinner.

17. Everyone in camp sends a special thank you to all the friends and family that sent Christmas presents and cards in September and October to get to the Cape in time for the holiday. To all our families and friends: **HAPPY NEW YEAR FROM CAPE SHIRREFF!**

---

*Report submitted by AMLR researchers currently residing at Cape Shirreff. These reports are also posted at <http://swfsc.noaa.gov/aerd-field.aspx>.*