

2009-2010 Weekly Field Reports

Copacabana, King George Island

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Science report:

1. Penguins: The annual gentoo chick round-up was done on Thursday (2/18), when we banded this year's known-age cohort of gentoo chicks. The date is calculated as 85 days from the mean egg-one lay date in our repro sites. This turned out to be almost three weeks later than the 11-year mean, supporting our earlier observations that the majority of the gentoos bred much later this year. 180 chicks were banded during the round-up, in addition to the 70 already banded as part of our known-age reproductive study, resulting in a total of 250 chicks banded for this year's known-age cohort. We also weighed the first 100 chicks we banded, to get an indication of their condition at fledging. The mean weight of these 100 chicks was about 4500 grams, almost 300 grams heavier than the 11-year mean. This should improve their chances of survival, meaning more of these birds than usual will return to breed in two-to-three years.

We also had a chance this week to analyze the data from our radio transmitter deployments on Adélie's in December. The mean foraging trip duration this season was 17.6 hours (SD=3.5), about five hours longer than the average trips recorded for the 2004/05-2008/09 seasons (mean=12.8), but very similar to the trips recorded last season (mean=17.4 hours, SD=2.9). Since the weather conditions were very different this season versus last, these lengthy trips are most likely due to the krill availability and abundance during the breeding season and not the weather.

2. Skuas: We completed what is likely our last visit to Demay/Patelnia this week. We marked two new territories that were established this season with numbered wooden stakes, banded the last couple of chicks, and collected late season scat samples to get an idea of what the skuas are eating now that many of the penguin resources have disappeared. As mentioned before, these samples will be brought back to California for analysis.

Our final tally of Demay/Patelnia skua territories indicated that 27 of 55 known territories had eggs. Twenty-two of these successfully raised one chick to banding age (>16 days), and two of these raised two chicks. As of 2/19, there are 24 newly banded skuas of known age at Demay/Patelnia.

In local skua news, we completed 48-day measurements for three of the brown skua chicks here at Copacabana.

3. Whales: This week we've had increased diversity in our whale sightings. On 2/17, four adult fin whales were seen exiting Admiralty Bay. On 2/20, visitors from the NOAA research vessel, R/V *Moana Wave*, reported seeing minke whales in the bay as well.



4. Seals: This week's seal census of Demay/Patelnia on 2/19 is indicative of the usual late-season increase in fur seal numbers. We counted 993 fur seals, down slightly from last year's count, and 322 elephant seals (20 of which were large, mature males), up about 50% from last year's count; both well within the expected range.

We also witnessed a leopard seal killing a penguin at Patelnia, an event that is notable simply because we have seen so little leopard seal activity recently.

Camp:

We had nice weather all week, with only a brief burst of wind on Wednesday morning (2/17). There was spectacular sunshine for the R/V *Moana Wave's* visit on Saturday (2/20). She brought in a re-supply of fresh fruits and vegetables, a new door, and many visitors. Sadly she also took Jefferson with her, whisking him off to our sister station at Cape Shirreff, where he will help to deploy satellite tags on penguins for over-winter monitoring. The week ended with a surprising drop in temperature, with the high on Sunday (2/21) only getting to 26° F. Needless to say, our pipes have all re-frozen and we no longer have running water.

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