

Seabirds:

1. Gentoo penguins finished crèche formation this week. Of our gentoo penguin reproduction plots 86% of the nests had chicks that crèched and 14% have failed. The peak of crèche formation was 1 Feb. The average age of chicks when first crèched was 28 days and on average 1.5 chicks crèched per nest. We estimated to peak of chinstrap chick crèche formation to have occurred on 2 Feb. To date 46% of the chinstrap penguin reproduction study nests have crèched, 7% have at least one chick, and 47% have failed.
2. We continue to monitor known-age penguins. The known-age gentoo penguin nests that we have been following have all crèched. Of the 27 known-age gentoo penguins that initiated clutches 48% have chicks that have crèched, and 52% have failed. Of the 68 known-age chinstraps penguin that have initiated clutches 27% have chicks that have crèched, 4% have at least one chick and 69% have failed.
3. From 3 February to 5 February we deployed five TDRs and nine PTTs on chinstrap penguins that have chicks that have crèched. Then on 7 February we deployed four TDRs and 10 PTTs on gentoo penguins with chicks that had crèched. We will retrieve these instruments one week from their respective deployment dates.
4. To date, we have collected 35 diet samples from chinstrap penguins and 20 from gentoo penguins. Chinstrap penguin diet samples have consisted almost entirely of Antarctic krill (*Euphausia superba*) with trace amounts of fish. Gentoo penguin diet samples were a mix of Antarctic krill and fish. To date, we have found otoliths from the species *Gymnoscopelus nicholsi*, *Lepidonotothen kempii*, *Pleurogramma antarcticum*, and an unknown species.
5. Of the eighteen pairs of brown skuas that we are monitoring five nests are still active, 13 nests have failed, of the two failures that have relayed both have failed again.

Pinnipeds:

6. We have only 13 fur seal mother/pup pairs, of the original 31 (42%), remaining in our attendance study. Of the 18 pups lost, 17 can be attributed to leopard seal predation. One pup starved to death when its mother failed to return from her fourth trip to sea. Trip durations averaged 3.8 days (n = 11) for the week (31 Jan through 6 Feb).
7. Fur seal diet sampling continued this week with the collection of 10 scat samples from areas of suckling females. All scats collected were predominantly krill.
8. Systematic surveys of defined areas of the Cape for the 500 per annum fur seals tagged as pups continued this week. This will give us a measure of tags sighted per unit of effort for different



cohorts and for different areas of the Cape. To date, our top three most represented cohorts in our tag resight data have been 1999, 2001, and 2006. A total of 93 different known-age individuals have been seen so far; this is 27% fewer than sighted for the same period last year.

9. We conducted our third sample of CCAMLR pup weights on 5 Feb. The mean mass for males was 13.2kg, and for females 11.3kg.

10. We have flipper tagged 107 pups for future demographic studies and cohort success. Seven of these were the pups of tagged adult females so far this season. This week we also completed our 3rd sample of CCAMLR pup weights, weighing and tagging 100 pups on our study beaches. Our remaining 393 tags for the year will be deployed over the next three weeks.

11. We are regularly seeing 22-27 individual leopard seals hauled out on the Cape at any one time. This is more than we have ever seen in the past for any one day.

Weather:

12. This week we recorded a minimum temperature of -1.4° Celsius, the coldest it has been since early December. The high was 5.0° Celsius. The mean was 1.0° Celsius. Mean wind speed for the week was 13.2 mph and the max. gust was 41.0 mph. More than 75% of the recorded wind directions this week were from the east.

Camp:

13. Our support ship, the R/V *Moana Wave*, arrived at the Cape on 6 February and re-supplied us with some fresh veggies, other food, and supplies. They brought much appreciated mail and gifts from friends and family back home. The weather was sunny and clear with a diminishing wind from the east for most of the day. Operations included off-loading all trash from the Cape. The ship arrived at 10:00 and began operations around 11:30. All operations were concluded by 19:00.

14. Carolina Bonin departed our team and the Cape with the R/V *Moana Wave* and Lt. Raul Vasquez del Mercado joined our team.

15. We wish to thank the Captain and crew of the R/V *Moana Wave*, Christian Reiss, Anthony Cossio, Douglas Krause, Ryan Driscoll, Kim Dietrich, Amy Van Cise and all the science staff that came ashore and helped with the re-supply. After 112 days on the Cape, the arrival of the R/V *Moana Wave* and everyone aboard was a welcomed sight.



Submitted by AMLR staff currently residing at the Cape Shirreff field station, Livingston Island.