

2009-2010 Weekly Field Reports

Copacabana, King George Island

Volume 12
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Science report:

1. Penguins: Our Adélie penguin foraging trip duration study using radio transmitters is in its fourth week, with only two nests that have not yet crèched. The transmitters will remain on the birds until they fall off during the molt.

We have been retrieving the satellite transmitters (PTTs) that were put on Adélies last week. The downloaded data from these PTTs show that the Adélies are going a short distance out of Admiralty Bay and into the Bransfield Strait to forage. This will be our only deployment of the PTTs on Adélies.

The Adélie penguin chick census was conducted at Copacabana and Point Thomas this week. The numbers were extremely low, as anticipated, due to the heavy snow earlier in the season. Only 0.34 chicks crèched per nest this year at Copa, the lowest ever recorded. Even in 07/08, when the snow conditions were similar, breeding success was higher, at 0.43 chicks/nest. In comparison, the 20-year average is about 1.0 chick/nest. At Point Thomas, the number of chicks decreased by 85% from last year's numbers.

We conducted our second gentoo penguin diet sample this week. The sex ratio of the krill (*Euphausia superba*) in all 5 stomach samples yielded more males than females, with the majority 40-50 mm in length.

Our first gentoo penguin chick with known-age parents was banded with a permanent stainless steel flipper band. These chicks are monitored separately from the main population, due to their known-age parents, so we can determine if the age of the parents has any affect on their survival. We continued to measure 21-day weights of gentoo chicks.

Two adult macaroni penguins came ashore this week for a short visit. Like the rockhopper penguin last week, these penguins mostly breed further north, but vagrants are often seen during the summer at Copa. These two individuals were probably either non-breeders or failed breeders, hence the reason they were so far from any macaroni breeding sites, and probably followed some Adélie or gentoo penguins returning to Copa.

2. Skuas: There are currently two pairs of both brown and south polar skuas at Copa that have successfully hatched chicks. Pt. Thomas has several 12-15 day old skua chicks, meaning they are large enough for banding, which will be done next week. In all the other areas, there are 9 south polar skua nests and one south polar/hybrid skua nest with chicks.

3. Whales: There was no whale activity observed this week.

4. Seals: We continue to do our weekly seal census. Over 400 elephant seals, two fur seals, and one leopard seal (on the beach) were counted in the Demay/Patelnia area. Thirty-eight elephant seals were counted in the Point Thomas area.



Camp Activities:

This week, Wayne Trivelpiece and Jefferson Hinke arrived on the cruise ship Minerva, very early Wednesday morning (1/14). The rain gutters for our water catchment system were dug out of the snow and installed on all the buildings. There is still some snow left and we are utilizing this for our water source -- snow is shoveled onto the roofs, where it melts into the gutters and then into storage barrels. We were also finally able to dig out the propane tanks stored from last season, which have been buried in the snow since we arrived.

Weekly Weather:

The beginning of the week had temperatures around freezing with variable, light winds. The middle of the week (and Jefferson and Wayne's arrival) brought warmer temperatures, in the upper 30's, and calmer days. With the warmer temperatures and rain on Sunday (1/17), the snow is rapidly melting.

The 2009-10 Copa Field Team:

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