

2009-2010 Weekly Field Reports

Copacabana, King George Island

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Science report:

1. Penguins: The second instance of cross-fostering at Copa occurred this week with the hatching of an Adélie penguin chick in a gentoo nest!

Adélie penguin peak crèche occurred early in the week. Adélie 21-day chick weights were completed this week, for a total of 46 chicks weighed -- the lowest weight was 1020 g, the highest 2280 g, and the average 1680 g. Of our 24 known-age Adélie nests that had eggs, only three had chicks that survived to crèche.

We deployed our first round of satellite transmitters (PTT's) on Adélie penguins. These transmitters are utilized to determine the foraging locations of the penguins at sea. We select an even ratio of males to females with two chicks for deployment. The transmitters remain on the penguins for seven to ten days and then are retrieved and prepared for a second round of deployments on new birds. The data are downloaded back in California, where they will be mapped and compared to previous years. Also, combined with the diets data we collect at the same time, we can get an idea of the location and distribution of the prey they are feeding on.

We did our first gentoo penguin diet samples this week. The sex ratio of the krill (*Euphausia superba*) in the samples was slightly more females to males, with the majority 42-48 mm in length. We plan on conducting four more rounds of gentoo diets.

On Friday (1/8), we checked the status of the Patelnia and Demay/Uchatka chinstrap colonies. Patelnia's chinstraps are a few days ahead of the Uchatka colonies.

We had an exciting visitor this week - a rockhopper penguin. These penguins breed farther north, on sub-Antarctic islands, but vagrants are seen occasionally at Copa during the summer.

2. Skuas: Two pairs each of brown and south polar skuas have successfully hatched chicks in the Copa area, for a total of three chicks of each species.

We banded our first south polar skua chick at Point Thomas this week. They are banded at 12-15 days of age with a permanent steel "tank" band on the right leg. This, when re-sighted later in their lives, will indicate that they were banded as chicks and are of a known age. A hybrid chick has hatched for the one mixed skua pair at Point Thomas - a brown female with a south polar male. In addition, seven pairs of brown skuas and one pair of south polar skuas have chicks. There are still many nests with eggs that have yet to hatch.

In the Back-Country this week, there was a pipped egg in one of the south polar skua nests, which means it should hatch in the next day or two, which will be the first chick for the area. Twenty-four of 32 occupied territories in the Back-Country have active nests (i.e., with eggs or chicks).



In the Demay/Patelnia areas, 25 of the 34 occupied skua territories have active nests. However, the three brown skua pairs that control the Patelnia chinstrap colony have not yet bred, which is very unusual, as these are usually the first to breed.

Skua reproductive success should be quite high this year, if the weather cooperates, as many of the territories are occupied with active nests. One interesting point is that only about a quarter of the territories which control penguin colonies have bred.

3. Southern Giant Petrels: Giant petrel chicks have begun to hatch this week. In a couple of weeks we will conduct a chick census, resight adult bands, and begin to band the chicks.

4. Whales: No whales were observed this week.

5. Seals: Two Weddell seals, one fur seal, and about 400 elephant seals were counted in the Western Admiralty Bay census area this week.

Camp Activities:

The snow continues to melt and many new areas are now exposed.

We celebrated Alexis' birthday on Thursday evening with a small gathering. On Sunday, some Brazilian scientists, from Ferraz Station across the bay, stopped by to discuss scientific projects and bring Alexis birthday greetings and a cake.

Weekly Weather:

It was windy and cold all week, with average wind speeds about 20 mph and temperatures below freezing. Light snow fell on two days, with minimal accumulation.

The 2009-10 Copa Field Team:

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