

2009-2010 Weekly Field Reports

Copacabana, King George Island

Volume 4
November 23, 2009

Science report:

1. Penguins: The Adélie penguin nest census was completed on November 16. The number of occupied nests at Copa declined by about 20% from the census data in 2008-09. However, the lower nest counts were similar to the population estimates from two years ago (2007-08), when snow accumulation in the breeding colony was also well above-average and many penguin nests were similarly buried in deep snow drifts. Estimates of breeding pairs in years with deep snow in the breeding areas are usually underestimates of the number of breeding population as nests are missed due to being lost in the snow followed by the pair abandoning their breeding attempt prior to the census date.

Most of the surviving Adélie penguin nests are now almost totally snow and ice free. The melting snow has uncovered many eggs that were lost earlier when nests were snowed in and the skuas are feasting on them. In addition, there are several nests with three or more eggs being incubated by a pair. This often happens when a pair's first egg gets covered with snow and is "lost". If this loss occurs after the first egg is laid but before the second egg completes the clutch, the female will replace the missing egg and lay a third to complete a new full clutch of two. As the snow melts, the buried 1st egg reappears and ends up being incubated in the nest! Unfortunately, since these penguins can only efficiently incubate two eggs at once, all the eggs are often lost due to exposure as the adult moves the 3 eggs around freezing one then others in an attempt to incubate all three. We will know how large an impact this has when we do our chick census and can determine overall reproductive success.

The gentoo penguins are finally starting to lay eggs in greater numbers now, most pairs having relocated to new, higher colonies. Those birds remaining on the beach are either using the few rocky areas that have melted out, or else are laying directly in guano and snow nests. The latter is occurring in areas where birds have congregated for a few weeks, waiting for their colonies to melt out, and now are standing in nest bowls in deep snow with thick layers of guano on top. However, most gentoo penguins have moved up to higher ground and are occupying breeding areas that were used a decade or more ago, but not since.

We are continuing to band one member of each of the 100 gentoo penguin pairs that we monitor for reproductive success and will use these banded adults to estimate overwinter survival next season.

2. Skuas: Regular checks of Copa skua breeding territories continue and we are now waiting for the first egg to be laid here. The first skua egg at Pt. Thomas was found during our first regular mid-week check on November 18. The early breeders are a pair from a territory that controls a portion of the penguin colony in the area. Skua pairs that forage on penguins are all Brown skua pairs and it is these penguin dependent pairs that usually lay the first eggs each season. Now that egg laying has begun, we will start our twice-weekly checks of the Pt. Thomas skua territories, for the rest of the season.

The first back-country skua survey was completed on Saturday, November 21. Most of the territories had at least one bird, and many had both members of the pairs from previous years, in attendance. There is still a great deal of snow covering the usual nesting areas for most of these territories, so it may be a while before any eggs are seen.



3. Whales: More humpback whales were seen in the bay this week, diving and apparently feeding through out Admiralty Bay. Fresh krill was seen washed up on the beach during low tide on 11/18, mostly larger females and many still alive, which may be an indication of high quantities of krill in the bay. We have collected measured and sexed a sample of the krill washing up on the beach for future analysis.

Camp Activities:

We still have large drifts around the camp with snow still up to the roof in places. However, the continued sunny days and warm temperature have melted much of the snow and most of the deck around the hut is finally exposed. We have plenty of shoveling remaining as we must free the canoes soon to allow us access across the lake in front of the Baronowski glacier to reach the more distant Chinstrap colonies and skua territories along the Bay towards the Bransfield Strait.

Weekly Weather:

Sunshine and warm (i.e., above-freezing) weather continued during the week, with little or no precipitation, resulting in considerable thawing around the hut and in the adjacent penguin colonies. Daily temperatures were above freezing, with a weekly high of 42 degrees! Night-time lows were often at, or just below, freezing.

The 2009-10 Copa Field Team:

Sue Trivelpiece, Co-PI

Amy Lindsley, Field Team Leader

Alexis Will

Renee Koplan

