

2009-2010 Weekly Field Reports

Copacabana, King George Island

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Science report:

1. Penguins: Adélie penguins are nearing peak chick hatching; almost half the nests have at least one chick. The incubation period this year was slightly longer than normal, averaging 35 days versus the usual 32-33 days. This was probably caused by the deep snow in the colonies at egg-laying, which cooled the eggs and retarded development. In addition, many eggs were lost due to the weather and deep snow. Currently, only 33% of the nests that originally had eggs are still active.

Gentoo penguin chick hatching is occurring in the higher, earlier-established colonies; however, many colonies in the lower areas and on the beach are just now completing egg-laying or are still constructing nests. Many gentoos delayed egg-laying due to the deep snow and frequent storms, resulting in this prolonged egg-laying period, which means the chick-hatching period will also be quite protracted this year.

The nest census for the remainder of the gentoo colonies with eggs was completed this week. It was a difficult year to determine the peak lay date due to the weather and snow. In many of the colonies there are some areas with chicks hatching and others with eggs just being laid. The storm last week destroyed many nests, but since gentoo penguins will often relay two more eggs after losing a nest early in the incubation period, most of these pairs will probably relay, some in an entirely new location.

We complete our first hike to Demay and Uchatka this week to complete the chinstrap penguin egg measurements and censuses. 50 nests with two eggs were selected randomly, and the length, width and weight of the eggs were measured to give us an indication of female condition at egg-laying. The nest censuses showed about a 30% decrease in the total number of nests this year compared to last year. One of the sub-colonies, Uchatka middle, is now split into two separate sections. Due to the heavy snow conditions, we were unable to continue on to the farther Patelnia chinstrap colony to do the nest censuses there. We are planning to do this next week.

2. Skuas: The nesting areas for the skuas at Copa, Point Thomas, Back-Country and Demay remain covered in snow. Some of the higher ground is snow-free, but the availability of nesting space and material is still very limited. This week we observed more skuas occupying territories, many with their previous season's mates. Presently, for the western Admiralty Bay region, there are 12 brown skua pairs, four south polar skua pairs, and two brown/south polar skua pairs with eggs; three nests have been lost due to the weather. On our first trip to Demay, we found that the members of the two brown skua pairs that have controlled chinstrap penguin foraging areas in the Uchatka colony in the past were not back together this year, and, in fact, the female from one territory has paired with the male from the other. Next week we will also be checking the skuas at Patelnia. All the skuas between Copa and Patelnia will be checked weekly for the remainder of the season.

3. Sheathbills: This year has been an active year for the sheathbills at Copacabana. There were many to greet us upon our arrival in October, as noted in our second report, but by the middle of November, the numbers had dropped to the two pairs of resident breeders. The male of one pair



is banded and has been breeding here for many years. They have been seen foraging in the penguin colonies daily, but no nesting activity has been observed yet.

4. Southern Giant Petrels: This week offered enough calm days to conduct the majority of the southern giant petrel nest census. We not only record the number of occupied nests but we also attempt to read the adult bands. The deep snow has also affected the giant petrels, as many gentoos have moved into the petrel colonies and either displaced some petrels or are nesting among them. In the distant past, gentoos nested in many of these colonies, but then abandoned them. In recent years, giant petrels began using them, and this year the gentoos moved back in, since these areas offered some of the only available snow-free ground. The remainder of the giant petrel census and band resights will be completed this week, weather permitting, and the results reported at that time.

5. Whales: There has been no whale activity observed in the bay this week.

6. Seals: We have been conducting our weekly seal censuses in the Copa and Point Thomas vicinity. The number of elephant seals on the Copa beaches has decreased this week compared to last. One of the elephant seals observed this week was tagged. Only one leopard seal was observed feeding on an Adélie. This week was the first seal census for the Demay area; a few elephant seals were observed. The census of the Demay and Patelnia areas will occur weekly, with our first seal census of Patelnia to occur this week.

Camp Activities:

A very windy day this week gave us the opportunity to tape all the penguin chick bands with this year's color; these will be used on 500 Adélie and gentoo chicks just prior to fledging. Some other minor hut duties were accomplished: All the interior window panes were washed with a bleach solution to remove the mold. The dish drainage hose was changed.

Weekly Weather:

Light snow on Monday (12/7) and Thursday (12/10), with little accumulation. Periods of wind and calm throughout most of the rest of the week, with high winds on Wednesday, 12/9. The snow is beginning to melt in many areas, especially around the penguin colonies; but there is still a lot of snow in Back-Country and Demay, some rather deep, requiring the use of snowshoes for all our hikes.

The 2009-10 Copa Field Team:

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