

# 2012-2013 Weekly Field Reports

## Copacabana, King George Island

Volume 8  
December 3, 2012

### Science Report:

1. Penguins: Reproductive monitoring of Adélie and gentoo penguins continues. Currently only 45 out of 100 Adélie penguin reproductive nests remain active, five of which now have chicks. Gentoo penguin reproductive sites continue to do well with 91 out of 100 still active, seven of which are now with chicks. Numbers of breeding known-age Adélie penguins stand at 16, whereas there are 62 nests of known-age gentoo penguins still active. Currently, there is only one known-age Adélie penguin nest with chicks; no known-age gentoo penguins have chicks yet.

Gentoo penguin egg measurements were completed on Monday (12/3), as a continuation of the measurements already taken in the earlier breeding hilltop colonies. As in the hilltop colonies, two eggs from 25 nests on Copa Beach were weighed and measured. When combined with the measurements taken in the hilltop colonies, the average egg volumes are very close to the 25-year means, although weights are slightly less. Interestingly enough, the earlier nesting hilltop egg volumes averaged greater than the 25-year means while the Copa Beach volumes averaged less than the means. Using the criteria that the first egg is the heavier of the two eggs in each nest, there was an average difference of 4 cm<sup>3</sup> in the egg 1 volumes between the two groups, while the egg 2 volumes averaged a difference of 2.5 cm<sup>3</sup>.

A check of chinstrap penguins at the Asbury Park colony on Copa Beach yielded 5 active nests, each with two eggs.

2. Skuas: Regular daily checks of the Copa skua breeding territories continue. Due to the cold, snowy spring, there are still only six active nests at Copa, all brown skuas with penguin territories. We were able to retrieve five GLS tags from these nesting brown skuas, since they are much easier to capture while incubating. Additional measurements and breast feathers were taken while the birds were in hand. The feathers will be analyzed to provide data on winter diets.

Point Thomas skua routes were completed on Wednesday (12/5) and Sunday (12/9). There are a total of five active brown skua nests. Five additional GLS tags were retrieved, with measurements and feathers taken. There still remain many vacant territories. Though some south polar skuas and non-penguin territorial brown skuas have been seen – resights are irregular and very few pairs have been noted on the territories for more than one visit. Snow still covers much of the low lying areas and may be contributing to some of the delayed returns. Though still frozen over, there were seven south polar and three brown skuas resighted at the Arctowski skua club lake.



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The Demay and Patelnia skua routes were completed on Thursday (12/6). There still remain many vacant territories; however, there was one south polar skua pair and an additional three brown skua pairs seen in the area. There are still no active nests at Demay/Patelnia.

Another Back Country skua trip was made on Saturday (12/8). There was an increase in skua resights this week, with five south polar skuas and one brown skua seen.

3. Sheathbills: A pair of unbanded sheathbills was observed at the end of Copa Rock, in the same location as last year's nest. The pair appeared to be actively building a nest. We will continue to monitor them throughout the season.
4. Whales and Seals: Orca whales were the most surprising and exciting observation this week. The entire crew observed a large pod of 15 to 20 individuals of varying size traveling out of Admiralty Bay on Thursday (12/6). The rough sea conditions and the speed of the animals made an accurate count difficult, as well as the fact that the pod was very spread out, with some individuals near shore while others were further out.

Humpback whales continue to be observed feeding and traveling in Admiralty Bay. Whales were seen daily on Monday (12/3) through Friday (12/7) with the largest number being three on Wednesday (12/5). The most interesting observation of humpback whales occurred on Thursday (12/6) when we witnessed two individuals traveling in the midst of the pod of orcas.

The Demay and Patelnia seal census, carried out on Thursday (12/6), yielded 338 juvenile/unknown sex elephant seals, 41 weaner elephant seals, and one Weddell seal. The Copa and Point Thomas seal census, carried out on Sunday (12/9), yielded 18 juvenile/unknown sex elephant seals and one Weddell seal.

There were four leopard seal attacks observed on Sunday (12/9) at Copa Beach. Two of the prey were identified as Adélie penguins while the other two were unknown. The attacks all happened in rapid succession and appeared to be the work of one individual seal.

5. Other: A king penguin was observed in the Adélie penguin colonies on Orange Cliff at Point Thomas on both Wednesday (12/5) and Sunday (12/9). The bird appears to be molting.



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Wilson's storm petrels have been seen more frequently in the waters off Copa Beach. A maximum count of eight individuals was observed foraging near the leopard seal attacks on Sunday (12/9). One Wilson's storm petrel was again observed scouting the front of the hut, presumably looking for the same nest-site (under the hut) used last year.

### Weekly Weather:

The week's weather was very consistent throughout the week with temperatures remaining just below freezing and moderate to no wind. We did not experience temperatures above freezing until Sunday (12/9), when we reached an afternoon high of 35 degrees. The moderate winds made travel to Demay and Patelnia, as well as two trips to Point Thomas, rather easy. Despite the freezing temperatures, the pipes managed to thaw mid-week, providing us with running water again.

### Camp Activities:

We discarded all moldy produce and cleaned and bleached the shelves in the "freshies" room in anticipation of the upcoming fresh food resupply this week via the US Research Vessel *Laurence M. Gould*.

The 2012-13 Copa Field Team:

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