

2010-2011 Weekly Field Reports

Copacabana, King George Island

Volume 9
December 12, 2010

Science report:

1. Penguins: A total of 96% of the Adélie and gentoo penguin nests in our study sites have hatched chicks.

This week we put out 20 radio transmitters on breeding gentoo penguins with chicks, ten males and ten females. We also have put out 13 of 20 transmitters on Adélie penguins; the final seven are to go out at the beginning of next week. These are used to track the length of the penguins' foraging trips throughout the chick-rearing period. Each transmitter emits a unique radio frequency that an antenna on the roof of hut picks up. There is a receiver in the hut, attached to the antenna, which cycles through the 40 frequencies & records their presence and absence, giving us a general idea of when a particular individual is absent from the colony (foraging) or present (attending its chick).

As with many aspects of our study, the length of foraging trip duration is another important index of how well the marine system is supporting the penguins. If there is an abundance of food nearby, the penguins should have relatively short trips. If the birds have to travel farther to find enough food to feed their growing chicks, the length of their foraging trips will reflect that. Combined with the productivity data, adult and egg weights, attendance, censuses, and egg measurements, the foraging trip information enhances our knowledge of how this breeding season compares to previous breeding seasons, and allows us an indirect look at a complex system that is otherwise hard to track.

2. Skuas: We again visited all 159 of our skua territories this week and found many new nests. Despite some losses due to the snows of last week, currently 39% of the territories have active nests.

3. Seals: The seal censuses continue to indicate that we are between the peak of elephant seal activity and the onslaught of fur seals, which will begin moving in later this month. There are still a good number of recently weaned elephant seals (89 counted this week) as well as juvenile males (234), a handful of females (23), and three adult males. On our weekly seal census from Copacabana to Pt. Thomas we saw only one Weddell seal.

4. Other: We helped Mike Polito collect all 20 gentoo samples and half (10) of the chinstrap samples he needs for his stable isotope study this week.

Weekly Weather:

We had a cold snap this week, starting Monday, 6 December and continuing through Thursday, 9 December. Sustained 20 to 25 knot winds from the E/SE blew frigid air from the Weddell Sea, dropping the thermometer well below freezing. With the wind chill, our temperatures were consistently between 11 and 15° F. Thankfully, on Friday 10 December the weather broke and we had a beautiful weekend: calm and frequently sunny!

The 2010-11 Copa Field Team:

Alexis Will, Field Team Leader

Penny Chilton

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