

2010-2011 Weekly Field Reports

Copacabana, King George Island

Volume 2
October 24, 2010

Science report:

1. Penguins: Gentoo penguins continue to lay eggs, with 1/3 to 1/2 of all nests now with at least one egg. We continue to band one adult per nest, waiting until there is an egg in the nest to assure that the pair has made a commitment to breeding, and with a stronger tie to the nest, are less likely to leave after banding.

The first Adélie penguin egg was seen on Friday (10/22), with the first egg in one of our study nests found the following day. With the arrival of eggs in the study sites, the banding of both the adults at each study nest has begun. As soon as a nest has an egg, there is only a three day window in which to band the female, as she will leave after laying the second egg. To date, only a few of our study pairs have eggs and have been banded, but this will increase in the coming week.

Prior to our departing the U.S., we learned of major krill-fishing activities in the Bransfield Strait, resulting in the maximum krill-take quota being reached and the fishery to be closed as of 10 October. Then, upon our arrival on 9 October, we found a ship actively fishing for krill in Admiralty Bay, and were later told by the Polish base that it had been fishing here for the previous two to three weeks, along with another ship for a short period of time. Due to these occurrences, we were concerned about the impact that this might have on the penguins at the beginning of their breeding season. Adélie penguins need to feed up until the time they come ashore, at which point they fast until the eggs are laid and the female leaves. The gentoo penguins, on the other hand, go out every day to feed, so need a good supply of krill nearby to get the female into good reproductive condition. As a result, we decided to take some diet samples from the gentoo penguins at this time, to see what they were feeding on and to compare the krill in their diets with what the ships were catching. The first five of these samples were collected on Wednesday, 20 October. We captured five gentoo penguins as they came ashore from feeding and collected a sample of their stomach contents using the wet-offload technique. Fifty krill from each sample were randomly selected and sexed and measured for later analysis. Most of the krill were in the 40-50 mm range, with an equal mix of males to females. Very few juvenile krill were found and only one sample had any indication of fish. We will take five more diet samples again this week.

2. Skuas: The first brown skua was seen at Copa on Monday, 18 October, hunting over the Adélie penguin colonies. Several more brown skuas have been seen during the week, all with penguin feeding territories. The brown skua pair that breeds near the hut is back together as of yesterday, 24 October, the male arriving on Saturday, and the female on Sunday.

3. Seals: Ten leopard seal sightings were recorded last week, seven of which were penguin kills. A few fur seals are still encountered periodically, but this is becoming more infrequent, and soon we won't see any at all until they return to molt in late December/early January. A large, sub-adult male elephant seal was on the beach and then in the middle of a mixed gentoo and Adélie penguin colony for most of the week. Several of the Adélie penguin pairs were displaced, but fortunately, none had eggs.



Weekly Weather:

Moderate to strong NNW winds continued for most of the week, often with rain or snow. Temperatures have mostly been above freezing, resulting in much more of the snow melting, exposing greater amounts of bare ground.

Camp Activities:

The damaged/non-functioning wind generator was taken down and the new spare installed, when there was a lull in the wind on Tuesday, 19 October. The new one is working great and generating electricity nicely. We have had mostly windy days since arriving, so the wind generator is very useful this year. There has also been a good amount of sun, meaning our batteries have been fully charged most of the time.

The mold battle continues, with every wall, shelf, and the contents of every room getting a thorough bleach and water wipe-down. The place has never looked better!

The 2010-11 Copa Field Team:

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