National Science Foundation & U.S. AMLR Program

2009-2010 Weekly Field Reports
Copacabana, King George Island

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Camp Activities:

We arrived at Copacabana on the morning of 17 October to moderate surf, a slight ice berm at the high tide line, & quite a bit of snow around the hut & in the colonies. Three of us went ashore in the first zodiac with the LMG MPC, Stian Alesandrini and several shovelers to assess conditions and start opening the hut up and clearing the snow. We landed right in front of the hut, but, due to the rough surf, it was decided to change the landing site to Ipanema Beach around the corner, which would make for easier landings, but longer sledges to the hut. Soon thereafter, the 2 LMG Electronic Techs arrived (Dan & Mike), and they got busy turning on the power system, getting the wind generator running, setting up the radios and Iridium phone, and getting the computers hooked up and running. The main offload was delayed a couple hours to give us time to open up & clear out the snow around the hut, so that when the food & supplies finally started to arrive, we were ready for them. We got much of the food put away and most of the cardboard boxes emptied, flattened, and returned to the ship for disposal before it was time for them to leave, so all was in good shape when the ship finally departed for Cape Shirreff. We are immensely grateful to all who helped make this year's Copacabana opening a huge success: John Evans (our POC – here in spirit), Stian Alesandrini (LMG MPC), LMG ETs (Dan & Mike), the MTs (Rick, Jack, & Thor), Captain Joe and the crew of the LMG, & all the Palmer scientists & staff (too numerous to mention by name) – we couldn't have done it without you all!

Science report:

1. Penguins: As our arrival was again later than optimal, we went out right away to check on the progress of the penguins. Unlike last year, however, due to the heavy snow, neither the Adélie penguins nor the gentoo penguins had eggs, so we had some time to set-up our study sites. Each person is responsible for 5-8 areas of five nests each of both species (Adélies and gentoos) to follow daily for reproductive success and nest attendance data. In the following days, everyone selected and mapped their separate study sites in all the colonies and waited for the first eggs to appear. Also, all bands seen are read and recorded, both the returning known-age birds (banded as chicks) and the old "repro" birds (banded in previous years' reproductive study). The latter information will be used to determine overwinter survival of our breeding penguins; and the former will be used to determine age–specific survival rates of each species.

The first Adélie penguin egg was seen on 25 October, five days later than last year, so we had sufficient time to set up the Adélie study areas. However, there were two big snowstorms that first week, limiting our ability to check nests efficiently and we believe the actual first egg may have been laid a day or two earlier. The first gentoo penguin egg was seen the next day, on 26 October, but only in a few colo[illegible] clear of snow, mostly up on top of the hill and over at Ipanema Beach. The gentoo colonies on [illegible] were still covered by fairly deep snow, so these birds were still far from egg-laying and therefore departing early every morning to feed at sea and returning throughout the day. When they begin to occupy their colonies continuously, we will know they are getting ready to lay and be prepared. Even so, everyone is going out and reading gentoo bands, as is done for the Adélies.

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As of writing, most of the Adélie penguin reproductive study sites have at least one nest with an egg, so work is definitely picking up. For these studies, both members of the pair are banded, but only one member of the pair at the gentoo nests, a total of 200 Adélies and 100 gentoos. These will be used to get daily nest attendance data on the Adélies, plus enable us to determine over-winter survival for breeders of both species next year.

2. Skuas: We saw our first skua soon after arriving and started our daily checks of all the skua territories around Copa this past week. However, due to all the snow, many of the territories are still unoccupied, except for the skua pairs that control penguin colonies. We record the arrival dates of each member of a pair at each skua breeding territory, and then any other birds they are associating with, etc. All of the territories in the ASPA are monitored regularly, at least once a week, with the ones around Copa being checked daily.

Weekly Weather:

The past two weeks have been mostly windy and cloudy, with snow most days. All but one of the snowstorms (three were significant) have been from the east/southeast, so were quite cold – well below freezing – with average wind speeds around 20-30 mph, gusting to 40-50 mph. We have only had two days with sun and no snow (today is one of them), so the accumulation around the hut is getting substantial.

Hut Improvements and Maintenance:

We wiped down food shelves and walls in storeroom and pantry with bleach and water solution to control mold, then reorganized the storeroom and pantry food items. We are shoveling of the snow off the pathways around the hut and off of the fish boxes (where much of our food is stored) daily. As we shovel we are filling bins and large pots with snow for melt-water, as the outside water barrels are frozen.

Finally a big thanks to RPSC IT (specifically Scott Walker) for diligently getting our email system running, after discovering a major connection problem with the new Iridium SIM cards during camp opening. Voice comms on the Iridium were unaffected, so we were not totally without contact to the outside world.

The 2009-10 Copa Field Team:

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