

2009-2010 Weekly Field Reports

Copacabana, King George Island

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Science report:

1. Penguins: An unusual event occurred at Copa this week with the hatching of a gentoo chick in an Adélie nest! Earlier in the season, a gentoo abandoned its nest after being snowed in and, soon thereafter, an Adélie pair took it over, successfully incubating the egg after it melted out. Penguin eggs can withstand some chilling, particularly just after they're laid, which is why this egg was able to hatch after being taken over by the Adélies. Cross-fostering experiments that were carried out in the late 1970's resulted in a fairly high success rate of penguins fledging chicks of different species, so it is possible that this current natural occurrence will end in success.

Our Adélie penguin foraging trip duration study using radio transmitters is in its second week and, to date, we have lost two of the 19 nests we are monitoring. We are finishing the Adélie 21-day chick weights and chicks are beginning to crèche. At this time, both parents must leave the nest to forage to be able to bring back enough food for their rapidly growing chicks. The chicks will gather together in groups, or crèches, for safety, until their parents return to feed them. A returning parent will go to the vicinity of its nest and give a call, which the chicks recognize and then run up to the parent and start begging for food. At this point, the parent usually turns and runs, so the chicks have to chase after it to get fed. This is called the "feeding chase", and is thought to be used by the parents to spread out their chicks so they only have to feed one at a time. It also can assure the parent that the chicks it feeds are indeed its own, as others would not expend the energy running after them for only a slim chance at getting fed.

We conducted our second Adélie penguin diet sample this week. The majority of the samples were female *Euphausia superba* in the 39-49 mm range, but a large portion of one sample was *Thysanoessa macrura*.

We are reaching the peak hatch of the gentoo chicks. In the earlier established colonies, chicks are already crèching. The 21-day weights for gentoo chicks has begun, which will give us an indication of their condition before crèching. Chicks of known-age parents are getting colored Velcro flipper bands until they are large enough for permanent stainless steel flipper bands. We want to be able to follow these birds throughout their lives to determine if the age of their parents has any effect on their survival, breeding success, etc.

On Monday (12/28), we checked the status of the Patelnia and Demay/Uchatka chinstrap colonies. 70-75% of the nests had chicks, the remainder still with eggs. However, there were also many nests with no eggs, a result of either the heavy snow earlier in the season or skua predation.

2. Skuas: The snowstorm last Sunday (12/27) buried a few Point Thomas skua nests, and as no birds were in attendance when we checked, we thought they had been abandoned. However, this week we found them free of snow, still with two eggs, and being incubated! Although these eggs are unlikely to hatch, due to prolonged chilling, it will be interesting to see what happens with them. There are currently nine brown skua chicks and one hybrid (brown/south polar) chick at Point Thomas. Two of the brown pairs that lost their eggs have relaid.



There were a few new nests in the Back-Country this week, but the majority of the territories are already occupied and with eggs. We were able to catch, measure, and band a female south polar skua from an unbanded pair, which will enable us to keep better track of the pair, now and in the future. We hope to catch and band its mate as soon as possible

There were many new skua nests with eggs in the Demay and Patelnia areas this week, so most of the territories now have active nests. However, the three brown skua pairs that control the Patelnia chinstrap colony have not laid yet.

3. Snowy Sheathbills: Only “Rasta” has been seen at Copa this week, foraging in the penguin colonies. No mate or nesting activity has been observed.

4. Whales: At least one, and as many as three humpback whales, one of which was a calf, were seen several times traveling and foraging together. It was unknown whether they were the same individuals for all sightings.

5. Seals: A leopard seal was observed on the beach at Demay. No predation activity has been observed.

Camp Activities:

The snow is finally beginning to melt, but there is still snow in many areas and a 3-4 foot snow bank around Copa. However, we were finally able to shovel out the small shed behind the hut, where we store our trash until it can be transported out. The “fridge”, a box that is attached outside the window over the kitchen sink, finally appeared from under the snow and was set up. Other items were also organized and put into storage areas.

We had a quiet New Year’s Eve at Copa, with only one Polish guest. On Sunday evening (1/3) the Chilean navy vessel, Lautaro, stopped by to check in on us.

Weekly Weather:

The week was calm and beautiful, with temperatures in the low 30’s. This was some of the best weather we have had in weeks. A small snowstorm on New Year’s Eve left only a couple inches of accumulation.



The 2009-10 Copa Field Team:

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