

2009-2010 Weekly Field Reports

Copacabana, King George Island

Volume 3
November 15, 2009

Science report:

1. Penguins: The Adélie penguin nest census was completed at Point Thomas on 11/14. The Copa census is being done today and will be included in next week's report. Numbers for Point Thomas are down over 20% from last year's count, which is most likely due to the influence of the heavy snow conditions this year compared to above average numbers last year when the colonies were bare in October and penguins were nesting earlier than usual. We had expected counts similar to those of two years ago, when we had deep snow in the colonies, similar to this season's conditions, but numbers this year are 20% greater than in 2007, indicating the recovery of the Adélie penguin population that we found last year remains above the all time low numbers of 2007.

Adélie penguin egg measurements were carried out at Point Thomas on 11/14. Both eggs at 50 nests are measured and weighed, to give us an indication of female condition at egg-laying. Preliminary analysis indicates that the mean volume of the first egg is greater than we've ever seen; however, the volume of the second egg is about average. However, both E1 and E2 measurements are greater than the values we saw last year. Whether this will help out the already dismal-looking reproductive season of 2009-10, is yet to be seen.

Adélie penguins are nearing the peak of egg-laying, with about 40% of the nests with eggs. However, as of November 15, only 60 of our 100 reproductive study nests are still active and many of these nests are sitting in deep snow-holes. The warmer temperatures we experienced this past week are definitely reducing the amount of snow around the colonies, but birds in deep snow-hole nests are still faring poorly. The thawing has caused nesting birds to sink farther down into the snow and the melt-water has no place to go but into the nest, resulting in eggs sitting in water. Most of these eggs will not hatch even though the penguins will incubate them faithfully for 5+ weeks before abandoning them in December. Reproductive success for the Adélies looks like it will be poor this year, given all these early losses and problems with the snow.

The first gentoo penguin chick was seen on 11/10. Back calculating the lay date using a mean of 36 days for the time of incubation from egg one to chick hatching, the egg was laid on 5 October. That is the earliest lay-date we have ever had at Copa in 33 years of study!

Gentoo penguins are moving daily to higher ground, so both our new and re-occupied old colonies are filling fast. More new colonies are being established daily as bare ground becomes exposed on the high ridge tops above the gentoo penguin's traditional nest sites on the beach areas. Eggs are now being laid in these high colonies, and we are waiting to see what happens to the birds still standing around on the snow down on the beach where most gentoo penguins have bred in the past.

The few chinstrap penguins we have in the colony are starting to build nests, display, & pair up, so we're hoping to see the usual three or four nests interspersed among the gentoo penguins as usual this year.



2. Skuas: Regular checks of Copa skuas breeding territories continue & most of the prior season's birds are in attendance. There is very little exposed ground for nesting, at the moment, so the skuas are simply occupying their territories and going through their courtship behaviors. Territories where an old mate has yet to return have several new birds displaying with the returning old territorial holder. Occasionally, a new skua will challenge the resident territory holder in an attempt to take over that territory, often resulting in vicious fights, sometimes to the death. We have observed several fights this year so far, but no changes in territory ownership to date.

3. Seals/Whales: Very few leopard seals have been observed this week, although one was seen on the ice & one was observed patrolling well off the beach at Copa. No kills were observed. Our weekly seal census also included 2 Weddell seals.

Our first whale sighting, on Sunday, 11/15, was of a humpback female and its calf, diving in the bay on their way out. The conditions were so calm that we could hear the blows. Humpback whales, especially female calf pairs are a common sighting throughout the summer season in Admiralty Bay.

Weekly Weather: There has been no significant snowfall this week and we had daily highs above freezing & wind speeds below 10 mph. Even with these milder days and evident thawing in places, the snow is still quite deep over most of the area and will most likely require many more such days to see bare ground.

Hut Improvements and Maintenance: Starting to chop away at the ice on the decks as the sun & warmer temperatures thaw it, in an attempt to clear all the decks around the hut before the next storm. We still have head-high drifts all around the hut, which won't be melting any time soon.

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