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2008-2009 Weekly Field Reports
Copacabana, King George Island

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We have now been at Copa nearly 3 weeks & everyone is well settled into a regular daily routine. The weather has been incredibly good for this time of year & has allowed us to get all our penguin and flying bird studies set up (mapped, study birds banded, & field books made) in short time. We have also managed to finish organizing & cleaning the hut, which is now in good shape & running smoothly.

Penguins

All of our 100 monitored Adélie penguin pairs have laid at least one egg and all the pairs have been banded. The use of bands allows us to identify the males & females of each pair and to record daily attendance patterns during the incubation phase of the breeding cycle. The female goes to sea to feed after laying the eggs, usually for 10-14 days, but this varies depending on her condition at arrival & how close and available the food resource (i.e., krill) is to the breeding area. In addition, resightings of banded birds from earlier seasons allows us to determine over-winter survival for these birds, which provides insights into the previous winter's conditions.

The peak of egg-laying for the Adélie penguins was October 24th, one of the earliest dates on record in the last 30 years and more than a week earlier than last year, when breeding was delayed due to the heavy early season snow cover. The annual census of occupied Adélie penguin nests was done at Copa on 11/5, but weather conditions prevented us from counting the Point Thomas colony at that time. Preliminary numbers from Copa show an increase in breeding pairs this year, but this result should be interpreted with caution as last year's census numbers were strongly affected by the unprecedented snow cover we experienced last season and its effect on the Adelie breeding cycle. All of the 100 monitored gentoo penguin pairs are with eggs, as well, & one member of each pair has been banded. As the gentoo pairs switch at the nest daily, it is not necessary to record attendance patterns for them. However, the bands will allow us to determine their over-winter survival.

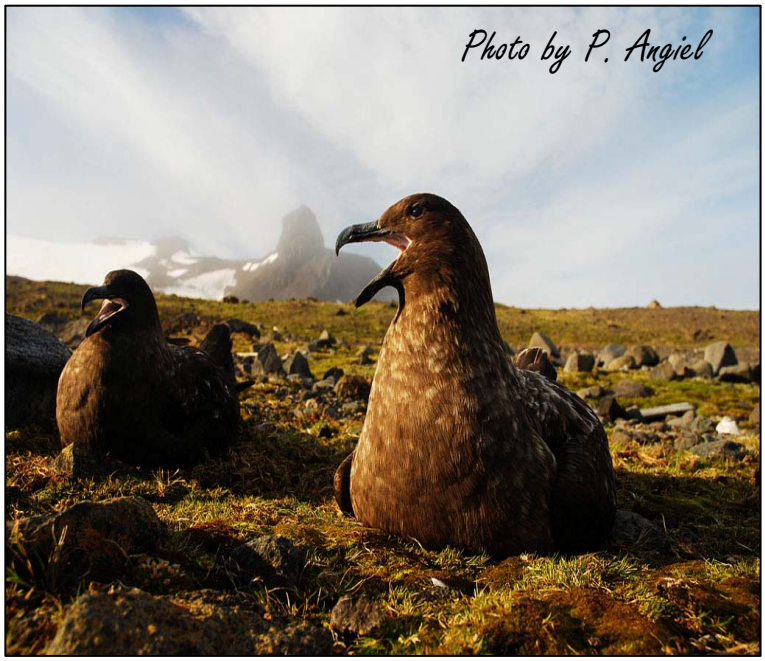
Peak of egg-laying for the gentoos was difficult to determine, as almost 2/3 of the nests were already with 2 eggs when we arrived, and these lay-dates will have to be back-calculated from their hatch-dates. However, a rough estimate of the peak would

probably be about 10/16, at the latest, much earlier than usual. We expect to see gentoo penguin chicks by next week. Gentoos remain in the area of their breeding colonies all winter, so the mild conditions during the winter of 2008 & lack of snow cover in the colonies at the start of the breeding season are probably the reasons for this early start. The gentoo penguin census of occupied nests was conducted on 11/2 at Copa & 11/3 at Point Thomas. Preliminary numbers show the highest counts for Copa we have ever had, with over 4000 occupied nests this year, versus only about 2900 nests last year, a 30% increase! Point Thomas remained about the same, with almost 130 occupied nests.

Gentoo penguin egg measurements were carried out at Point Thomas on 11/3. Both eggs at 50 nests are measured & weighed, to give us an indication of female condition at egg-laying. Egg sizes this year are average, compared to previous years.

Skuas

Regular checks of Copa skuas continued & many of the territories are now with at least one bird in attendance, including a few south polar skuas, which generally return a bit later. All of the brown skuas that hold penguin territories have been regularly seen & are actively taking eggs from the colonies. Weather conditions last weekend prevented us from checking all the Point Thomas skuas, but we noted that many were back near the Polish station & along our route to Copa.



Seals

Leopard seals have been very active in the area, with several penguin kills a day being observed. As these observations are purely opportunistic, many more kills are most likely occurring. Already some of our penguin study nests have failed due to one member of the pair not returning, possibly the result of seal predation.

Weekly Weather

Mostly calm, cold, & gray, with temperatures rarely getting much above freezing. A couple of small fronts passing through gave us a bit of snow, wind, & high surf, but these passed quickly & didn't impact things significantly, except for curtailing some work at Point Thomas.

The 2008-09 Copa Field Team
Sue Trivelpiece, Co-PI
Dave Loomis, Field Team Leader
Amy Lindsley
Kristen Green