

New research projects – from local farms to the world's loneliest island**Ornithological research to help farmers**

Crop damage by birds is a problem faced by farmers worldwide and many imaginative solutions to the problems have been devised.

In the Overberg region of the Western Cape Province, Egyptian Geese *Alopochen aegyptiacus* cause substantial losses to crops of barley, canola, wheat and triticale, especially during the germination and harvesting periods. On most farms these problems arise annually, but no practical solutions have as yet been found: neither scarecrows, hooters nor shooting have provided the answer. In 1997, the Fitztitute started a two-year programme in the area with the aim of finding a scientifically-based means of reducing crop damage. Crop damage by geese is not unique to the Overberg: hopefully, however, if we can find practical solutions to this particular problem, the answers can be applied in crop-farming areas elsewhere in Africa.

How many birds can our estuaries support?

Coastal wetlands are disappearing at an alarming rate worldwide, but scientists are still struggling to predict with any degree of accuracy what the effects of these losses will be on bird populations.

This is a very pressing problem, and one which Fitztitute researchers will be addressing later this year at the Swartkops estuary in the Eastern Cape Province. By studying changes in the local distribution, aggressive behaviour and energy intake rates of migratory



Macaroni Penguin *Eudyptes chrysolophus* on Bouvetøya Island.

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waders during the post-breeding arrival period, we will try to assess how close the bird populations are to the maximum population that the estuary could absorb. This will help answer the question of whether this estuary (as one example) could support more birds if birds were displaced by wetland losses elsewhere in the region. This study is particularly relevant in South Africa as the country's water supplies continue to dwindle and the demands for water placed on our rivers grow ever greater.

The loneliest island on the planet

The Fitztitute has a long history of research at sub-Antarctic islands and in Antarctica. Most of the island-based research has been carried out at the Prince Edward Islands, Gough Island and the Tristan Archipelago. The loneliest and one of the least known of all sub-Antarctic islands is Bouvetøya, a rugged, windswept outcrop of rock in the south Atlantic, more than 90 per cent of which is permanently capped with

ice. The opportunity to form a joint expedition with the Norwegian Polar Institute and South Africa's Sea Fisheries Research Institute during the summer of 1996/97 was too good an opportunity to miss!

Bouvetøya is a Mecca for many seabird species, who cram their breeding efforts into the short polar summer. One of the prime purposes of the expedition was to initiate monitoring of the biology of Chinstrap Penguins *Pygoscelis antarctica* and Macaroni Penguins *Eudyptes chrysolophus*, which breed in tens of thousands on the island. Almost no ornithological research has ever been undertaken at Bouvetøya, and we took the opportunity to gather baseline data on the numbers and diets of several other species, including storm petrels, prions, skuas, Pintado Petrels *Daption capense* and Southern Fulmars *Fulmarus glacialisoides*. Adult storm petrels and young fulmars turned out to be the main prey of the Sub-Antarctic Skuas *Catharacta antarctica*.

It is hoped that we will be able to continue ornithological research on this fascinating pinprick in the ocean well into the future (and far from the confounding influences of man and his commensals!). □

**Percy FitzPatrick Institute of African Ornithology,
University of Cape Town,
Rondebosch 7700,
Cape Town, South Africa.
Phone (021) 650-3290;
fax (021) 650-3295;
e-mail
birds@botzoo.uct.ac.za**