



# AVIAN DEMOGRAPHY UNIT

The Avian Demography Unit undertakes bird research in partnership with BirdLife South Africa

## Namibian connections



EBERLANZ MUSEUM, LÜDERITZ

*In 1939, African Penguins bred at high density on Halifax Island, near Lüderitz, but ...*

The past two ADU pages in *Africa – Birds & Birding* focused on a waterbird-ringing course in Ghana and the A.P. Leventis Ornithological Research Institute in the Amurum Woodlands IBA near Jos in Nigeria. The 'Focus on Africa' theme now moves to Lüderitz in Namibia. There is no town on the planet which has a larger proportion of its citizens as students of the ADU!

For her PhD, Dr Silvia Mecenero did a long-term study of the diet of seals in the northern Benguela. The basic technique was simple, but required a degree of resilience to bad odours and lots of dogged persistence: Silvia collected seal scats at three colonies, turned them into slush, and sieved out the otoliths – 1.7 million of them. Otoliths are the hard ear bones of the fish which do not get digested. Each fish species has distinctive otoliths, so the seals' diet can be determined.

To estimate the size of the fishes, Silvia measured the otoliths accurately under a microscope, and then used equations which estimate fish size from otolith length. Her research has been published as a series of papers, and the most important practical outcome is that seals do not seriously compete with the fishing industry for fish. There was

a bird focus too. Silvia found feathers in seal scats only twice: one was from a penguin and the other from a juvenile cormorant. The seals in the colonies are mostly lactating females feeding their pups prior to weaning. Thus, most scats Silvia examined were produced by females. This helps confirm our understanding that the overwhelming majority of seal

predation on seabirds is done by male seals, especially sub-adults.

Jessica Kemper went regularly to Halifax Island to collect detailed data on the lives and times of the small (and decreasing) colony of penguins nesting there. She made the trip by paddle-ski. The title of her PhD thesis neatly sums up her findings: 'Heading towards extinction? Demography of the African Penguin in Namibia'. Penguins in Namibia are having an even harder time than penguins in South Africa. In 1950, 33 per cent of the penguins were in Namibian breeding colonies; 50 years later, the proportion was only 13 per cent.

Sponsored by NAMDEB, Justine Braby has this year started an MSc, investigating one of the most enigmatic bird species of the Sperrgebiet, the Damara Tern. About 98 per cent of the world's 14 000 Damara Terns breed along the desert coast of Namibia. They do not breed uniformly along the coast, but are concentrated at a small number of sites that have the right combination of factors. Nor do they breed on the coast itself: most pairs nest several kilometres inland, in the heat of the desert. Justine is investigating the impact of diamond mining on Damara Tern breeding performance, working within the restricted area of the Sperrgebiet.



JESSICA KEMPER

*... by 2004 there were none in the same area. The guano in which the penguins made their nest burrows has also disappeared.*

Avian Demography Unit, University of Cape Town, Rondebosch 7701. Tel. (021) 650 2423; fax (021) 650 3434; e-mail adu@adu.uct.ac.za; web www.aviandemographyunit.org