



# KILLER MOVES

## Save the albatross – club that seal

Thanks to their very conservative life histories, the great albatrosses are among the most extreme examples of the so-called 'seabird syndrome'. They rear at most one chick every two years and only start breeding at around 10 years old. As a result they rely on low rates of adult mortality. If even five per cent of breeding birds die each year, their populations start to decline. This dependence on high adult survival rates makes all albatrosses particularly susceptible to additional mortality, and explains why so many species are listed as Globally Threatened.

Natural causes of death among fully grown albatrosses are poorly known. Fledglings leaving their colonies for the first time often suffer high mortality as they face the daunting task of learning how to find food without assistance from their parents. But once they survive their first year at sea, they appear to face few serious threats. Causes of natural mortality are poorly documented, in part because few adults die each year, and those deaths mainly occur at sea. But predation is not thought to be a significant problem. Apart from sharks eating Laysan and Black-footed albatross chicks as they fledge from atolls in the North Pacific, there are very few records of albatrosses being killed at sea.

With this in mind, these photographs are all the more remarkable. On 9 September 2011 Keith Barnes was leading a Tropical Birding tour to New Zealand's sub-Antarctic Campbell Island. The weather in Perseverance Harbour, a deep bay on the eastern coast, was calm, making it difficult for the 10 or so Southern Royal Albatrosses *Diomedea epomophora* sitting on the water to take off. As the party was preparing to go ashore that morning, their attention was drawn to a flock of Kelp *Larus dominicanus* and Red-billed *Chroicocephalus scopulinus* gulls hovering over an albatross. They watched in disbelief as, for the next 15 minutes or so, the bird was attacked by an immature male New Zealand sea lion *Phocartos hookeri*. The seal struck the albatross from below every two to three minutes, pulling it under the water. Despite the albatross trying to fend off the attacks with its bill, the seal eventually ripped out its belly and left it floating on its back at the mercy of the gulls and



KEITH BARNES (3)

A rogue male sea lion disembowels a Southern Royal Albatross at Campbell Island. In the middle picture, the sea lion's head punches into the stricken bird's abdomen with considerable force, leaving the bird floundering on its back (bottom).

giant-petrels. It died shortly thereafter. On their return to their ship that afternoon, Barnes's party saw what appeared to be the same sea lion make another kill in the same area.

New Zealand sea lions target a wide variety of prey, including occasional penguins, and the large adult males sometimes kill and eat fur seals, as well as sea lion pups. Seals in general are well known for attacking birds at sea, but this appears to be only the second record of fully grown albatrosses being targeted (the only previous report being of Black-footed Albatrosses attacked

by fur seals behind a fishing vessel off California in the 1950s). The mode of attack is typical of seals killing seabirds at sea, as they frequently target just the viscera. Individual seals often specialise in such behaviour, killing many birds in succession. John Cooper reported a Cape fur seal *Arctocephalus pusillus* killing more than 50 African Penguins *Spheniscus demersus* in one day at Dassen Island in the 1970s.

Interfering in seabird-seal interactions is a delicate subject, but one that has to be tackled given their increasing frequency as seal populations recover from several centuries of human exploitation. Predation by seals could be dismissed as natural mortality, but given the anthropogenic threats facing many seabirds, management action is often required. For example, Newi Makhado showed that Cape fur seals killed 30–80 per cent of Cape Gannet *Morus capensis* chicks fledging from Malgas Island each year. Clearly such a high mortality rate is unsustainable, particularly in a threatened species. Because typically only a few seals are responsible for most attacks, selectively removing these individuals would significantly reduce the number of birds killed.

Southern Royal Albatrosses are listed as Globally Vulnerable with an annual breeding population of some 8000 pairs. Campbell Island is their main breeding site, supporting 99 per cent of the total population. Although New Zealand sea lions are also listed as Vulnerable, it would be worth shooting 'problem' animals to limit their impact on threatened seabird populations. Most sea lions and fur seals implicated in attacks on seabirds are young males and, given their polygynous mating systems, the loss of a few immature males has little impact on their populations. Indeed, the precedent was set a few years ago, when another New Zealand sea lion was shot after it attacked and killed some royal albatrosses on their nests on Campbell Island. Seal attacks on seabirds ashore are rare and can have even more dire implications (for example, the temporary desertion of the Cape Gannet colony at Lambert's Bay, which might well have been permanent had there not been swift management action). Land-based attacks probably occur after an individual seal develops a taste for seabirds at sea, which is all the more reason to tackle problem animals.

PETER RYAN & KEITH BARNES

## SHOEBILL TRADE: The cost of being unique

Shoebills are one of the most charismatic African birds and are high on the bucket list of birders around the world. Unfortunately their appeal isn't confined to people wanting to see them in the wild. There is a steady demand from zoos and private collectors for live birds and, because Shoebills rarely breed in captivity, this places increasing pressure on their already vulnerable populations.

Shoebills are listed in Appendix II of the Convention on International Trade in Endangered Species (CITES), which is supposed to regulate trade in the species, and they are protected in most range states, but this does not halt illegal trafficking. Birds are being collected for sale in Uganda and Tanzania, with reports of as much as US\$20 000 being paid for a bird even before it leaves its country of origin.

Until recently, there had only been rumours that illegal trafficking was taking place in the Bangweulu Swamps, Zambia, at the southern end of the Shoebill's range. However, investigations over the past year revealed a flourishing trade in Shoebill chicks there. At least four chicks disappeared from monitored nests, and another two were recovered before they could be removed from the area. They were hand-reared at Chikuni by David Ngwenyama, a researcher working on Shoebills in the district.

Kapotwe, the smaller of the two chicks, flourished in captivity, but started to show signs of habituation, despite attempts to limit its exposure to people. It greeted

Ngwenyama with its bill-clapping display and begged for food. The second chick, Bwalya, was older when rescued and its arrival had a beneficial impact on Kapotwe, who reverted to more natural behaviour. Bwalya has since been equipped with a GPS-satellite transmitter and released. The intention is that Kapotwe too will be released once fully grown. The only surviving chick found during this breeding season, Kafinda, has also been fitted with a transmitter.

To prevent such events recurring, African Parks, who manage the area with local communities under a public-private partnership, will employ fishers to guard Shoebill nests. And during the next two years, Ralf Mullers, a post-doctoral fellow at the Percy FitzPatrick Institute, will tag as many adults and chicks as possible to improve our understanding of the demography and movements of the Bangweulu Shoebills.

However, in the longer term there needs to be stricter control on the international trade in Shoebills. Another attempt is needed to have the species uplisted to Appendix I of CITES, which prohibits trade except under exceptional circumstances, and greater pressure should be placed on zoos to not buy wild Shoebills.

PETER RYAN

*Kapotwe, the smaller of the two Shoebill chicks rescued from poachers, poses with Zambia Wildlife Authority scouts and children from the fishing village where the bird was being held in a small straw hut.*



DAVID NGWENYAMA