

CAPE GANNET



There are few more stirring sights at sea than hundreds of Cape Gannets dropping out of the sky like kamikaze pilots. Plummeting at up to 90 kilometres an hour, they morph their bodies into streamlined projectiles just before they hit the water, allowing their momentum to carry them like fizzing bullets 10 metres underwater to catch their prey. Gannets are the world's greatest plunge-divers, designed to attack schools of pelagic fish such as sardine and anchovy from the air. Sadly, like many seabirds, they face an uncertain future as a result of a host of threats both at sea and on their breeding islands.

Cape Gannets breed only in southern Africa. One of three gannet species worldwide, they are the only one that is currently threatened and the species is listed as globally Endangered. The population has halved during the past 60 years, but this decrease has varied dramatically across the species' range. The main threat is too little food as a result of competition with fisheries for pelagic fish, but other pressures include predation at breeding colonies, extreme weather events linked to climate change, disease outbreaks and bycatch on fishing lines.

Too many eggs in one basket

Cape Gannets breed in dense, noisy colonies on offshore islands where they are safe from terrestrial predators. For the past century they have bred on six islands: Mercury, Ichaboe and Possession off southern Namibia, and Lambert's Bay, Malgas and Algoa Bay's Bird Island off South Africa. In the 1950s there were some 260 000 pairs, 80 per cent of which bred in Namibia. Today there are barely 130 000 pairs, 95 per cent of which breed in South Africa. Perhaps most worrying is the overwhelming dominance of the colony in Algoa Bay, which currently supports almost three-quarters of all Cape Gannets in the world. This is the only stable population – all five colonies off the west coast of southern Africa are decreasing. Should something happen to the colony on Bird Island, the species' future would be in grave danger. Gannet colonies are susceptible to disturbance; in 2005, when a few Cape fur seals started preying on adults breeding at Lambert's Bay, the entire colony was abandoned. The birds only returned the following year thanks to CapeNature preventing seals from entering the colony. Similar attacks are now happening at Malgas Island, the second-largest colony.



PETER CHADWICK

Wasting away

Although Cape Gannets are versatile predators, the main reason for their decrease at colonies off the west coast is a shortage of their pelagic fish prey. The ongoing declines stem from overfishing in the 1960s and 1970s, which caused the collapse of sardine populations. Off Namibia, there was a shift to an ecosystem dominated by jellyfish and salps, which offer little nutrition for hungry gannets and eat most of the eggs and larvae of the few remaining fish, preventing sardines from recovering. Off South Africa, sardines were replaced by anchovies, allowing gannet numbers to increase in the 1980s and early 1990s. However, since the late 1990s there has been a shift in the distribution of anchovy and sardine from the west to the south coast of South Africa, driving a steady decrease in gannet numbers at Lambert's Bay and Malgas Island. The Cape Gannets breeding at Bird Island in Algoa Bay benefited from this spatial shift in their prey, with their numbers increasing until 2004–2005 when they stabilised at around 95 000 pairs, making Bird Island by far the largest gannet colony in the world.

TEXT BY PETER RYAN



Diving for a living

Gannets are social foragers. They commute in long lines, reducing the cost of flight by drafting behind the bird in front of them, and fly low over the sea to benefit from the ground effect that further reduces drag. They are visual predators that feed only by day. The adults' bold black and white plumage makes them conspicuous at sea, especially when feeding, when they rise up to 40 metres above the water. Gannets are supremely adapted for plunge-diving; they lack external nostrils and have air sacs under their skin to cushion the impact of hitting the water. That shock is minimised by their streamlined body, which allows them to maintain their momentum underwater. Most fish are caught on the initial descent, when the gannets rely on their speed to catch their unsuspecting quarry. However, they can also pursue their prey underwater, swimming with their large webbed feet and partly closed wings to depths of up to 30 metres. Gannets prefer to eat sardines and other schooling pelagic fish, but they also target other fish and squid and scavenge from trawlers.



JOHN GRAHAM

Magic feet

Breeding occurs mainly in summer. Cape Gannets typically lay only one egg, which is incubated by both parents. They lack a brood patch and instead keep the egg warm with their webbed feet. The egg takes about six weeks to hatch into a nearly naked, blackish chick that has to be brooded for the first few weeks. Chicks are fed regurgitated fish and grow rapidly. After 11 to 12 weeks they weigh more than their parents, but then lose weight as parental feeds dry up and they typically leave the nest when they are 13 to 15 weeks old. A steady supply of pelagic fish is important to raise healthy offspring. Chicks fed on bottom fish and discards scavenged from trawlers grow more slowly than those fed oil-rich pelagic fish and may suffer reduced cognitive abilities, making them less able to cope in a changing world.

ALBERT FRONEMAN

CHRIS FALLOWS

Crowded house

The shortage of suitable breeding islands around southern Africa results in Cape Gannets breeding at higher densities than either Northern or Australasian Gannets. At about three or four nests per square metre, neighbours are just a neck-stretch away. To reduce tensions, gannets have evolved a series of ritualised calls and displays, including sky-pointing, head-shaking and nape-biting. During the day, colonies reverberate with the appeasing calls of adults landing and taking off, making them among the noisiest of seabird colonies. Some displays may even contain information on where to find food: the length of time partners display to their mates when they return to their nest is related to the distance and direction they have just travelled while foraging!



PETER CHADWICK

FAST FACTS

- The genus name *Morus* comes from the Greek word for 'foolish', referring to the gannets' lack of fear on land, which allowed them to be easily caught and killed. The Afrikaans name, Malgas, is a corruption of the Dutch 'mal gans' or 'mad goose'.
- Males and females are the same size. Males have a slightly larger bill and a longer black throat stripe, but there is so much overlap between individuals that these features cannot be used to sex birds, even in the hand.
- Juveniles are grey-brown with whitish spots, quite different from the sleek gold and white adults. They acquire adult plumage over two to three years and most start to breed at four years old.
- The oldest Cape Gannet known was 38 years old, a record for any gannet.
- Although gannets only come ashore at their breeding islands, they can be seen flying past headlands such as Cape Point. Lambert's Bay is the most accessible gannet colony.