## close quart

ne of the ways in which Cape Gannets differ from their cousins, the Australasian and Northern gannets, is that they breed at higher densities. Cape Gannets typically pack in about three to four nests per square metre and can attain more than six nests per square metre. This is double the density of the other two gannet species and leaves precious little space between adjacent nests.

The high nest densities in Cape Gannet colonies are often attributed to the limited availability of nesting sites. The few offshore islands along the Benguela coast of South Africa and Namibia are mostly small, providing little space for seabirds and seals to breed away from terrestrial predators. Unlike Australasian and Northern gannets, Cape Gannets do not breed on coastal cliffs, perhaps due to the threat of marauding baboons – al-though some southern African cormorants manage to breed on sea cliffs.

However, a shortage of breeding space can't be the only reason for the high density of Cape Gannet nests. The species breeds on only six islands, three off southern Namibia, two off South Africa's west coast and one off the south coast. The birds could breed on more islands; historically, gannets bred on four other islands - two in Namibia and two off the Western Cape. And there have been attempts to establish new colonies. In 1968, a group of gannets settled on Robben Island and in the 1980s several hundred occupied Dyer Island, some even laying eggs, but the colony failed to establish.

Cape Gannets appear to require a large critical mass of birds to breed successfully. The only colony with fewer than



1000 pairs is on Possession Island, south of Lüderitz, where gannet numbers have been decreasing steadily from some 20000 pairs in the 1950s. This colony seems doomed to local extinction. By comparison, many colonies of Australasian and Northern gannets number in the hundreds or even just tens of pairs.

The seeming requirement for large colony size among Cape Gannets may stem from the patchy distribution of sardine and anchovy schools in the Benguela. Gannets breeding in larger colonies benefit from having more conspecifics out searching for food (see *African Birdlife* 10(4): 42). And by breeding in large, dense colonies, Cape Gannets also reduce the risk of having their eggs or chicks stolen by opportunistic predators such as Kelp Gulls (see *African Birdlife* 10(2): 50–51). But living almost on top of your neighbours also brings challenges.

Cape Gannet aggregations are among the noisiest of seabird colonies. Gannet vocalisations are important for finding mates and chicks in their crowded quarters. The initial part of each gannet's call acts like a vocal fingerprint, allowing birds to recognise their kin. The calls of birds coming in to land also serve to warn birds on the ground of their Cape Gannets breed in tightly packed, noisy colonies, at double the nesting density of other gannet species.

impending arrival. With little space between nests, landing is an exercise in diplomacy. The long gular stripe of the Cape Gannet exaggerates appeasement displays such as sky pointing.

But the greatest risk associated with breeding in very dense colonies is the spread of parasites and diseases. Cape Gannets have presumably evolved mechanisms to cope with the ticks and fleas that infest seabird colonies, but novel diseases pose a real threat to a species already struggling with a shortage of its preferred prey. To date, gannets have got off fairly lightly during recent outbreaks of avian 'flu at seabird colonies around the South African coast. But this summer an H5N1 strain of avian 'flu has more than halved the world's largest Northern Gannet colony on Bass Rock, Scotland. Should it reach our coast, it could cause a catastrophic collapse in Cape Gannet numbers. PETER RYAN

