waders ON THE WANE?

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The second Southern African Bird Atlas Project has revealed many range changes among southern African species during the past few decades. And although the presence/absence data generated by atlas lists are largely qualitative, a recent study shows that differences in reporting rates also can indicate changes in the populations of birds.

To assess whether atlas data showing a decrease in migrant wader records from the Western Cape coast were cause for concern, Peter Ryan repeated counts made by the Western Cape Wader Study Group in the early 1980s. With the help of John Graham and Tim Reid, he conducted counts along 278 kilometres of coast in 2010/11, some 30 years after the original counts. Confidence in the trends detected was bolstered by dividing the study area into three regions: the west coast, south coast and the Cape Peninsula, including Robben Island. In each of these regions, surveys were conducted in both protected areas and open-access beaches to allow for the possible effects of coastal development and the burgeoning human population.

The results, reported online in *Austral Ecology* (doi:10.1111/j.1442-9993.2012.02397.x), are alarming. Numbers of virtually all migrant shorebirds have decreased, with the two most abundant species – Sanderling *Calidris alba* and Curlew Sandpiper *Calidris ferruginea* – plunging by more than 90 per cent, while numbers of Ruddy Turnstone *Arenaria interpres* and Grey Plover *Pluvialis squatarola* have dropped by more than 50 per cent. To ensure that the 2010/11 summer wasn't anomalous, in 2011/12 Peter repeated counts along selected stretches of coast where there were multiple counts from the early 1980s and this revealed that the decreases detected over the past three decades were consistent through the years.

Although migrant shorebird populations have decreased, it's not all bad news. The counts confirmed that numbers of African Oystercatchers *Haematopus moquini* have increased, thanks in part to the awareness programme to conserve this species, including measures such as closing beaches to private vehicles. However, the main benefit to oystercatchers has come from the great increase in food availability, resulting from the invasion of the shoreline by the alien mussel *Mytilus galloprovincialis*.

The other resident shorebird that breeds on the coast, the White-fronted Plover *Charadrius marginatus*, has fared less well. Throughout the region its numbers have decreased by almost 40 per cent and plummeted by close to 60 per cent on the Cape Peninsula, where human disturbance is greatest. Some populations of this species have disappeared entirely (for example at Fish Hoek and Gordon's Bay), while its numbers on open-access beaches have decreased far faster than on beaches in protected areas, suggesting that disturbance by people and their dogs is the likely cause.

Interestingly, the total number of birds using the shoreline hasn't changed during the past three decades. The virtual disappearance of migrant waders has been offset by large numbers of Egyptian Geese *Alopochen aegyptiaca* and ibises, especially Sacred Ibises *Threskiornis aethiopica*. Numbers of gulls and herons have also increased, and the preponderance of large-bodied birds means that avian biomass has increased on the shore. The niche occupied by waders that feed on small crustaceans associated with washed-up seaweeds, once such a feature of the west coast, appears to have been taken over, at least in part, by Common Starlings *Sturnus vulgaris*.

Regional decreases in migrant wader numbers might result from either a change in wintering areas or a decrease in population size. For Curlew Sandpiper, there is some evidence that numbers wintering further north in Africa have increased, but for coastal specialists such as Sanderling, Turnstone and Grey Plover a decrease in the flyway population is more likely. Further coastal surveys are required to assess whether the decreases observed in the Western Cape have occurred throughout southern Africa.

Sanderling numbers along the Western Cape coast have decreased by 90 per cent over the past 30 years.
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