In 1963, when Bob Dylan recorded his classic album ‘The times they are a-changin’, he had little idea of quite how prophetic his lyrics were to be. His song referred to the social and political revolution of the times, but almost 50 years later we are witnessing arguably the most rapid environmental revolution the world has experienced since the mass extinction at the end of the Cretaceous, 65 million years ago. Signs of this transformation abound in the natural world and are linked to habitat modification and climate change. Among birds, there are many examples of marked alterations in species’ abundances, ranges, breeding seasons and migration patterns.

The Sanderling is one of the migrant shorebird species that has become scarce on the south Peninsula over the past two decades, probably as a result of global population decreases as well as local increases in human disturbance.
Thanks to the project’s online data-capture system, it is possible to interrogate the data as they are submitted to assess how bird populations have altered over recent decades.

The South African Bird Atlas Project (SABAP) offers a great tool to assess how local bird populations are shifting. Data collection for the first SABAP was conducted mostly in the 1980s and it culminated in the 1997 publication of the two-volume Atlas of the Birds of Southern Africa. The second atlas team at the University of Cape Town’s Animal Demography Unit then took a well-deserved rest before launching SABAP2 in 2007. After a rather slow start, SABAP2 has taken over and has already amassed more than two and a half million records from 45 000 checklists. Thanks to the project’s online data-capture system, it is possible to interrogate the data as they are submitted to assess how bird populations have altered over recent decades.

As an enthusiastic supporter of both atlas projects, I thought it would be interesting to see how things look in my home square, the Cape Peninsula, African Penguins are only regularly observed in one of the 11 pentads that include some land area, the one around Simon’s Town that contains the Boulders penguin colony. (If you’re wondering why the southern Peninsula has been lost, records of African Hoopoes, Black-shoul dered Kites, Lanner Falcons and Barn Owls have decreased. Birds of coastal thicket, such as Karoo Scrub-Robins, Long-billed Cuckoos, Cape White-eye, Cape Bulbul, and now breed on the Peninsula.

Verreaux’s Eagles have become rare, whereas Cuckoos (although both are still doing all right running for just on three years. SABAP1 had 93 818 species records on 1407 cards for the south Peninsula, compared to 18 208 species on 372 cards to date for SABAP2. As a result, vagrants and species that irrupt into the area infrequently are less likely to have been recorded during SABAP2. However, sufficient data have accumulated to assess changes in the more common birds of the region, and some very striking patterns have emerged.

There have been no marked changes in species with wide habitat tolerances (generalists such as Cape Robin-Chat, Cape White-eye, Cape Bulbul, Karoo Prinia and Common Starling). Aerially feeding swallows and swifts also appear little changed, with the possible exception of the arrival of Common Swifts. Among fynbos species characteristic of the Peninsula’s mountain chain, several appear to have decreased in abundance. In the case of some localised ones, this may be as a result of reporting biases (for example, Cloud Cisticola, Cape Clapper Lark and Plain-backed Pipit), but in others there is little doubt that species have either disappeared entirely (African Stonechat) or become much more scarce (Grey-winged Francolin).

Verreaux’s Eagles have become rare, whereas Boulders penguins because the species is easy to see at Boulders, whereas in SABAP2 only cards from the Simon’s Town pentad are likely to have penguins. In fact, only 10 per cent of SABAP1 cards had African Penguins, partly because penguins only colonised Boulders in the mid-1980s and partly because many ‘incomplete’ cards were submitted. But the pooled reporting rate for African Penguins in SABAP2 is less than two per cent, because only eight of the 372 cards submitted for the region to date have been for the Simon’s Town pentad. Clearly Simon’s Town needs a resident atlaser! The moral of this story is that one has to be cautious when interpreting the apparent seven-fold decrease in African Penguin reporting rates from SABAP1 to SABAP2, when in fact there are now many more penguins at Boulders than there were when SABAP1 was conducted.

The other big difference between SABAP1 and SABAP2 is the duration of the two studies. SABAP1 built on the Western Cape Bird Atlas Project, so data for the Cape Peninsula spanned more than a decade, whereas SABAP2 has been...
Other species have invaded the urban landscape, such as House Crows and Hadedas. Southern Grey-headed Sparrows have also reached the Peninsula, the latest in a long list of species that have spread into the Western Cape.

The invasive House Crow is an unwelcome addition to the avifauna of the southern Peninsula. It has had unfortunate impacts on the populations of many local birds, including breeding waterbirds at Rondevlei Nature Reserve.

on average 33 times lower than they were in SABAP1. Reporting rates of resident Kittlitz’s and White-fronted plovers have also decreased, but not to the same extent. For largely coastal species such as Ruddy Turnstones, Sanderlings and Common Whimbrels, increased human activity along the coast has probably exacerbated their decreases. Two migrant terns have also suffered: White-winged Terns have not been recorded during SABAP2 (down from 14 percent of cards in SABAP1) and Antarctic Terns have largely disappeared (due at least in part to increasing disturbance at their traditional roost site at Kommetjie).

Some resident wetland birds have experienced significant losses during the past few decades. Hamerkops were recorded on more than a quarter of SABAP1 cards from the south Peninsula, but not a single one has been logged in SABAP2. Half-collared Kingfishers have also gone, and Giant Kingfishers are less common than they once were. Greater Painted-snipes are now rare vagrants and Black Storks, once regular winter visitors to the Peninsula, have disappeared entirely. Ducks have held their own, as have two of the three grebe species, but Black-necked Grebes are now decidedly rare. The only new wetland species gained are Goliath Heron (thanks to a long-staying individual at Rondevlei Nature Reserve) and African Openbill (following the 2009–10 irruption throughout South Africa).

Phil Hockey and Guy Midgley recently reviewed the pattern of birds colonising the Cape Peninsula since the 1940s (Ostrich 80: 29–34), and the atlas data largely support the patterns they identified. However, they did not consider the species disappearing from the system. Overall, the negatives outweigh the positives: excluding vagrants, total bird species’ richness has decreased by about 10 per cent on the southern Peninsula in the recent past. The species lost tend to be specialists, whereas many of those gained have been generalists that in some instances have the potential to become a ‘nuisance’. The one constructive aspect we can take from this is that, thanks to SABAP2, we can demonstrate just how significantly bird populations are changing around us. These results can be used to help guide local and regional conservation management and planning.

If you’re not already contributing to SABAP2, register (at http://sabap2.adu.org.za) and discover the joys of atlasing.