Cranes in the field

South Africa's national bird, the Blue Crane *Anthropoides paradiseus*, is listed as 'Vulnerable' globally, as a result of ongoing decreases in numbers in the eastern grasslands that form the core of the species' range. Numbers of Blue Cranes in grassland areas have fallen by up to 90 per cent as a result of habitat loss and poisoning. However, it is no secret that the population in the Western Cape is doing quite well. The Overberg and Swartland currently support roughly half of the world population, with numbers either increasing or at least stable.

Surprisingly, Blue Cranes weren't found in the Western Cape prior to the widespread conversion of Renosterveld vegetation to cereal agriculture, a process that intensified in the 1970s with the replacement of fallow camps with pastures. Blue Cranes probably have benefited from agricultural practices in the Western Cape, because the mosaic of cereal crops and pastures offers cranes nesting and feeding sites that mimic their natural grassland habitats. But this situation presents conservationists with a dilemma, because agriculture is also believed to have caused decreases among many Renosterveld endemic plants and other organisms.

For scientists and conservationists alike, many questions remain to be answered. Within this transformed landscape, which habitat features do cranes favour or avoid? Do they select for or against certain agricultural practices or crops? Do cranes choose to nest near to or far from patches of Renosterveld? And finally, do any of these habitat features affect their nesting success?

PETER STEYN

The Blue Crane is one of relatively few species to benefit from transformed landscapes.

A recent project by MSc student Mark Bidwell answered some of these questions in the Caledon area. Working with the Overberg Crane Group and the Western Cape Nature Conservation Board, fieldworkers found and followed the fate of 70 nests between September 2003 and January 2004 – the largest sample of Blue Crane nests ever studied. Bidwell also measured the attributes of nest sites to determine how Blue Cranes choose where to breed.

The results suggest that Blue Cranes limit human disturbance at their nests by selecting sites far from buildings and roads, and by nesting in large fields. Cranes seem to benefit from man-made agricultural dams: by selecting nest sites close to dams, they may increase the survival of their young, which require water within 24 hours of hatching. They preferred to nest in dryland pasture over cereal crops, and had higher breeding success in pastures, probably because of reduced human disturbance. This finding may explain the increase in crane numbers since the 1970s, when pasture production and sheep farming became more widespread.

Blue Cranes avoid areas of tall vegetation, presumably to reduce the risk of predators approaching the nest undetected, yet patches of natural vegetation seem to be important to nesting cranes. They selected fields that contain some remnant patches of Renosterveld, suggesting that both cranes and Renosterveld endemics may benefit from conserving the remaining patches of Renosterveld.

Overall, the study indicates that Blue Cranes benefit from large, open fields, low human disturbance and abundant sources of water. They have responded positively to recent changes in agricultural practices, but are unlikely to benefit from agricultural intensification and a change to other crops such as vineyards, olives or orchards. Finally, if cranes benefit in some way from the persistence of Renosterveld, their presence in the Western Cape may contribute to efforts to conserve this rare vegetation type.

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