



WARWICK TARBOTON

Plantations of alien trees have allowed forest-adapted Black Sparrowhawks to colonise the Cape Peninsula.

Extensive plantations of exotic trees are generally poor bird habitats, but a number of forest-adapted species, including at least nine tree-nesting raptor species, have thrived with the advent of commercial forestry in South Africa and extended their ranges into previously unoccupied areas. As efforts to undo the ecological damage associated with the spread of alien trees gather momentum, habitat availability for these 'invasive' raptors is now diminishing. Odette Curtis, a Cape Technikon student working at the Fitztitute, is investigating the effects of the 'rise and fall' of exotic trees on the fortunes of Black Sparrowhawks on the Cape Peninsula.

Nothing is known of the status of the Black Sparrowhawk in this area before large

tracts of indigenous forest were felled in the 1600s. During the 20th century, however, it was apparently absent from the south-western Cape until the early 1970s, and in the late 1980s was described as 'an uncommon resident' that 'may be expected to colonise the Cape Peninsula in the next few years'. Now, more than a decade later, there is a healthy population breeding on the Peninsula.

The main objective of this research project is to determine how the hawks respond to man-made changes to the local environment. As fast as territories are established by new pairs, others are lost as initiatives to fell alien trees gain ground. How does this progressive erosion of the hawks' habitat affect the density and success of

breeding pairs, as well as the maintenance of their territories, as their quality is constantly re-defined?

While the presence of Black Sparrowhawks on the Peninsula may be a result of man's activities, it offers an exceptional opportunity to investigate the extent to which birds' life-history traits can adapt in the face of rapidly changing environments. Curtis has embarked on a trapping and colour-ringing programme that will enable her to monitor the performance of individual birds in response to these changes.

Preliminary results indicate that several aspects of the sparrowhawks' breeding biology on the Peninsula are unusual and warrant investigation. There is considerable overlap in diets of local sparrowhawks and

Peregrines, yet the falcons have a well-defined breeding season (August–December) and the hawks a more extended one (March–November). Given that they are dependent on a common prey base (pigeons and doves), why this difference? There have also been reports of Black Sparrowhawks in the Peninsula attempting to breed twice in one year. Should this behaviour be verified, what environmental features allow or promote such an unusual breeding strategy, and what are its consequences in terms of adult survival and chick production? A key question to be tackled is whether these adaptations in breeding biology are a consequence of recent colonisation or a response to the ongoing disruption of the birds' habitat. □

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