

The Black Harrier Research Project

The Black Harrier *Circus maurus* is a southern African endemic, with most breeding pairs restricted to the winter-rainfall area of western South Africa. During the past century, as a result of extensive land transformation by agriculture, invasive alien vegetation and urbanisation, this species may have lost more than 50 per cent of its core breeding habitat in the fynbos biome. Yet, despite its localised distribution and fairly small population, surprisingly little is known about this spectacular raptor. To remedy this, the Black Harrier Research Project was initiated in 2000 by Andrew Jenkins, Rob Simmons and Odette Curtis.

The overall aims of the project are to understand the habitat requirements of the Black Harrier, to explore the potential of this species to act as an indicator of environmental integrity, and to examine how landowners can best contribute to the conservation of harriers and the natural habitat patches on which they depend. It will also use the Black Harrier as a flagship species for raising conservation awareness of broader environmental issues in the fynbos biome.

During the first three years of the project, baseline data were collected on the breeding populations in two core areas: the Swartland and Overberg coastal plains in the Western Cape. The harrier nests are concentrated in remnants of natural vegetation along the coastal strip and inland in montane habitats. Few nests occur in intensively



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A Black Harrier at its nest situated in strandveld vegetation at Jakkalsfontein Private Nature Reserve on the Cape West Coast.

cultivated areas, despite evidence from direct observations and prey remains that harriers forage in cereal croplands. Harriers breeding in dune thicket (strandveld) along the coastal strip often nest in loose colonies around wetlands and feed mostly on mice and other small mammals. They have good breeding success, experiencing fairly low levels of predation. By comparison, harriers in mountain fynbos nest singly, take a wide range of prey, and are subject to high levels of nest predation.

The researchers thus believe that the Black Harrier has been displaced from favoured renosterveld and lowland fynbos habitats (characterised by better foraging and nesting opportunities), primarily through the advent and spread of cereal agriculture. This hypothesis forms the basis of their ongoing research.

In 2003 about 40 large fragments of renosterveld and lowland fynbos on private land were surveyed for harrier breeding activity. Only two of these patches had harriers breeding in them. It is likely that the rest of the patches are unsuitable, because they are too small, or too heavily degraded as a result of excessive grazing and/or being burned too frequently.

The Black Harrier project is now reaching the end of its fourth season, and the researchers have at least another two seasons of field work ahead of them. With a significant injection of funding from the Critical Ecosystem Partnership Fund (CEPF), the project has been able to grow, both in terms of research capacity and public awareness campaigns. There is now a strong emphasis on involving landowners, birdwatchers, conservation authorities and

the general public through education and awareness.

Another major focus of the project has been to learn more about where the breeding birds forage. The males do most of the provisioning, and the researchers want to discover how far they travel from the nest and how they use the different habitats available to them. The researchers are especially interested in comparing the relative importance of transformed versus pristine habitats.

Early results suggest that Black Harriers are very closely linked with pristine habitats and their presence is therefore likely to be indicative of a healthy, intact ecosystem.

We thank the Cape Bird Club for its financial support over the past three years. Anyone interested in contributing to the project should contact Odette Curtis, Andrew Jenkins or Rob Simmons at the Fitztitute. □

Visit the FitzPatrick website: <http://www.fitzpatrick.uct.ac.za>

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