# The Black-cheeked Lovebird in Zambia

**By LOUISE S. WARBURTON, University of Natal, South Africa**

**This study was undertaken to investigate the ecology of the Black-cheeked Lovebird (*Agapornis nigrigenis*) in the wild. Prior to this study little was known about the ecology of this parrot or other members of the genus *Agapornis*. The Black-cheeked Lovebird is classified as Vulnerable and has suffered a severe population decline and reduced distribution, from which, for largely speculative reasons, it has never recovered. The overall aim of this project was to elucidate the basic biology of the Black-cheeked Lovebird and determine the conservation actions which are necessary to conserve the species in the wild.**

Black-cheeked Lovebird
Photo*: Louise Warburton*

Fieldwork was conducted across the species' range in south-west Zambia over twenty-two months between May to December 1998; March to December 1999; and February to May 2000. An education project focussing on Black-cheeked Lovebird conservation was conducted with local schools, villagers and Zambia Wildlife Authority scouts during September 2001.

Historical records pertaining to distribution of the Black-checked Lovebird, both within and beyond Zambia are few, anecdotal and often discredited, and it is suggested that the species should be considered as endemic to Zambia. Within its core range the species has a clumped and localised distribution, associated with Mopane woodland and permanent water sources. Two sub-populations occur and appear to be distinct.

Black-cheeked Lovebirds were most active in the early morning and late afternoon, forming the largest daily flock sizes during these times, which correlated with drinking and feeding activities. The smallest flock sizes occurred when roosting. Overall flock sizes were significantly larger during the dry (non-breeding) season.

Black-cheeked Lovebirds were observed feeding on 39 species. Food items included seeds, leaves, flowers (especially nectar), fruit pulp, invertebrates, bark, lichen, resin, and soil. Various foraging techniques were used. Terrestrial foraging was dominant, with little temporal or spatial variability. Arboreal foraging in plants varied seasonally and by availability. Feeding preferences were not specialised and there was no dependence on a limited food resource.

Black-cheeked Lovebirds fed on two agricultural crops. There was no evidence to suggest an extended foraging range during the crop-ripening season, or the reliance on crops for survival. The crop-ripening season coincided with the lovebird breeding season. The species is widely perceived as a crop pest, with 18% of seed heads of millet crops suffering more than 20% damage during the ripening season. Local farmers attempted to protect their crops in a variety of ways, however, these were largely ineffective and rarely lethal to lovebirds. The importance of elevating local tolerance for the species through education programmes is highlighted.

This study presents the first collection of breeding data on the species. Breeding occurred from mid-late January to early May. A single clutch was raised by most pairs per breeding cycle. Seventy-eight nests were found and characteristics measured. Fidelity to nest-sites is suspected. Although breeding behaviour was non-cooperative most nests were found in a loosely clumped distribution. No nesting requirement appeared to be in limited supply, or had reason to affect the population's reproductive output. In addition courtship, copulation, parental care and juvenile behaviours are reported. Data on clutch size, laying intervals and hatching success with captive birds are included.

In this study, 78 nests were found.
Photo*: Louise Warburton*

One nestling tested positive for Psittacine Beak and Feather Disease Virus (PBFDV). Other observations suggest PBFDV is present in the wild population.

Black-cheeked Lovebirds roosted inside naturally formed cavities in live Mopane trees. Roost cavities were found in a loosely clumped distribution. No roosting requirement appeared to be in limited supply.

Black-cheeked Lovebirds are highly dependent on surface water supplies and need to drink at least twice daily. The lovebirds are highly cautious drinkers that will not drink if the water resource is actively disturbed by humans or livestock. Water availability is a limiting factor to the Black-cheeked Lovebird. The gradual desiccation of its habitat appears to be the major cause behind the reduction of occupancy within its small range. In recent years (1950 - 1997) the annual rainfall in the Black-cheeked Lovebird's habitat has decreased resulting in further reduction of its already highly localised distribution, increasing the species' dependence on artificial water supplies.

Its conservation management should be prioritised towards maintaining and creating water resources with minimal external disturbance; upholding the wild-caught trade ban in the species, continuing environmental education with local schools promoting lovebird conservation, and monitoring populations through dry season water source counts.

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