Black-cheeked Lovebirds in the Wild

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It's not easy to see a Black-cheeked Lovebird (Agapornis nigrigenis). By the time I finally saw my first flock, home, in the gentle green hills of Oxfordshire, seemed an unreality. This was May 1998 in south Kafue National Park, Zambia. Eight Lovebirds flew up from the ground, a silent flash of vivid green disappearing into the nearest canopy cover of small thorny balanites bushes.

The core distribution of these Lovebirds is found in a disjointed belt of mopane woodland, between the Zambezi River to the south and Kafue River in the north. A small break in the mopane between these two catchments seasonally divides the Black-cheeks into two sub-populations. I spent last year camped out in the Nanzhila plains observing the northern population, mapping their distribution, estimating abundance and attempting to identify their habitat requirements including diet, watering, roost and nest sites.

The Study Site

The south Kafue National Park is characterised by wide open grassland plains interspersed with bushes and termiteria. Most of the termite mounds are well vegetated, with the insect's underground earthworks bringing up minerals that the plants exploit. The elevation of the termite mounds also protects the roots from waterlogging during the summer rains when much of the area is flooded - and impassable to wandering Lovebird researchers. Fringing the plains are the Colosphopemum mopane, mopane, and Brachystegia, miombo woodlands. The Park is the largest protected area within Zambia, covering around 22,480 km^2, making it one of the largest four in the world. The Nanzhila study site was chosen based on information from the Tim Dodman Black-cheeked Lovebird survey (1994) and Zambian Ornithological Society records.

During the months of fieldwork intense efforts were made to open up routes around the study area and to locate water sources. This was followed up with routine monitoring for Lovebird use and drying dates. The study area is bisected by the Nanzhila River from north to south, which had already dried into isolated pools by May. Pool numbers continued to decrease as the dry season progressed. Woodland pools in the mopane had largely dried by July, but refilled with the first rains in November.

A flock of Lovebirds in Kafue National Park. Photo: Louise Warburton

Find that Lovebird!

The Lovebirds were usually located by sound. Once sighted their location was recorded by GPS, together with as much information as possible on flock-size, activity, interaction with other species and habitat data. Each Lovebird sighting, water pool and feeding site was numbered and stored on the GPS for subsequent reference as the season's progressed. Throughout the region Black-cheeked Lovebirds were found in localised population clumps. As the field season progressed it became possible to recognise "ideal" Lovebird habitat. However this was no guarantee for locating the Lovebirds who appear to be absent from large areas of suitable habitat within their already highly localised range. Some which were Lovebird-free from May until mid-September were used by the parrots during the height of the dry season, presumably attracted by the availability of water.

The Importance of Water

The early stages of fieldwork concentrated on locating water sources, to see if they were utilised by Lovebirds. The characteristics of utilised and non-utilised pools were recorded. Contrary to earlier speculation the Lovebirds drank from a variety of pool types, in early morning and late afternoon. The exact arriving times changing with increasing day-length. Typically the pools appeared to be positioned between the ovemight roosting location and the daytime feeding area. At regularly observed pools morning arrival and afternoon departure

directions were reversed, indicating that roost sites remained constant.

Behaviour at the pools changed seasonally as the availability of water became reduced. As the dry winter season progressed, the number of birds arriving to drink increased. The arrival and meeting up at the pools became a significant social event. From May to July Lovebirds would come to drink in small flocks, typically of 5 or 6 individuals, perching briefly before dropping silently to drink, then retreating to the same bush for a brief preen or rest. The flock would then depart together, generally calling, typically as another flock flew in. By late August Lovebird numbers began concentrating at drinking time. Flocks would arrive, contact-calling, in the vicinity of the water pool, gathering in a single or a few neighbouring trees (typically the tallest, or with the barest canopy). Early arrivals settled to preen, sun-bathe and contact call the next arrivals in. The largest recorded number of individuals arriving at a single pool was exactly 800. The time taken from the first arrival to the first drinking wave was exactly one hour. Large flocks of doves and Red-billed Quelea drank during this time, with the Queleas 'meeting' in small bushes before drinking in large groups. In contrast to the silent approach to the water of the smaller Lovebird flocks earlier in the season, these large waves of birds seemed to generate a lot of excitement, making them wary to land long enough to drink. Most Lovebirds would then disperse in small flocks to feed, although 'returns' to drink in small flocks were common.

Food

Around eighty per cent of feeding observations were made with Lovebirds foraging for grass seeds at ground level, usually under the canopy of Mopane termiteria woodland, often near the (scrub) fringes bordering grassland plain, and a sub-canopy of bushes such as Balanites aegyptiaca or Boscia angustifolia. The mean feeding flock size was 9 individuals. When foraging, the birds covered the ground fairly rapidly by walking, hopping and fluttering. They fed almost non-stop with all heads down at the same time. At ground level the Lovebirds fed almost without exception in silence, until disturbed, whereupon the flock would take off in silence usually retreating to perch in the nearest canopy. Then the Lovebirds either dropped down again to resume feeding, or individuals would start to softly contact-call to stray Lovebirds who did not retreat to the same tree.

Lovebirds were also observed to feed arboreally. Species fed on included Acacia polyacantha (leaves), Capparis tomentosa (flowers), Combretum paniculatum (flowers), Syzgium cordatum (unopened flower buds) and scale insects on mopane leaves in June. As the project progresses effort to document the species fed on by Black-cheeks will continue. A likely hypothesis is that as the dry season progresses until the later rainy season when the grasses seed, ie. October through to mid-January, the Lovebirds depend more on non-grass seed nutrition (ground feeding decreases). Black-cheeked Lovebirds coincide their breeding with grass-seed production making the exact time of breeding variable, but on average slightly later than the widely published November-December season.

Resting and Preening

The Lovebirds were observed to rest at any time during the day, usually retreating into the shaded mid-canopy of the Mopane in the vicinity of feeding areas or in the locality of a water pool. They slept with either their heads tucked around onto their back with the bill buried into the back feathers, or facing forwards with the orange bib (and all body feathers) puffed out and the bill resting on top. The Lovebirds slept in small flocks, usually a combination of heads back and puffed bib, with one or two remaining awake to preen or observe. They usually fell asleep almost immediately once perched, and slept continuously until alarmed. The duration of sleep/resting periods observed

Black-cheeked Lovebird being examined in Kafue National Park. Photo: Louise Warburton

was usually around twenty minutes, although fifty minutes to one hour were not uncommon when there was no disturbance. Other small bird species such as Red-billed Quelea, Southern Grey-headed Sparrow and Blue Waxbill also commonly rested near by.

The Lovebirds were often observed to scratch, and also to mutually, allo-preen and self preen. Sunbathing was common in the cold early mornings and pre-sundown during May, June and July. In the heat of September and November a few Lovebirds were observed clearly panting, with their feathers sleeked to their body, an upright posture, wings held away from the body slightly drooped and the bill gaped open.

Predation

Although commonly observed in the near locality of potential predators, like the Accipiter species, only one observation was made of a pair of Lovebirds being 'buzzed' by a Lanner Falcon. Little Banded Goshawks (Shikra) were routinely observed at water pools, often swooping down on mixed Quelea, Sparrow and Lovebird flocks at the water's edge. However the Lovebirds were also observed to perch right next to (and surround !) a Shikra in a small Acacia bush, and African Fish Eagles who were observed to kill doves and a Grey-headed Sparrow on one occasion. Evidence of one killed Lovebird was found under a small Mopane tree next to a water pool. It was almost certainly a raptor kill as feathers from all over the body had been plucked, and there was evidence of other small avian victims having been consumed from the perch above.

Unusual Colouring

Two Black-cheeked Lovebirds were observed at the Mabvigo water pool on the 08/09/98 which did not conform to the described type (after Sclater 1906). One was much yellower on the breast with a brighter orange forehead and crown. The other was of normal body colouring but had a much paler culmen which looked near white.

Aggression

Overall the Lovebirds were not observed to be an aggressive species. The vast majority were not observed to perch as a pair, ie. the stereo-typical Lovebird pose, but rather as individuals

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