



Bold and Beautiful: Lilac-breasted Roller in Field and Aviary

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I have two lasting impressions from my birding travels through parts of East Africa. The first is of a notable abundance of diurnal birds of prey, especially larger species such as eagles and vultures, and the second is of a prevalence of coraciids. Being particularly interested in coraciiform species probably predisposed me to noting the presence of these birds, but I did find them to be unexpectedly plentiful, and perhaps no species epitomized this prevalence more than the ubiquitous Lilac-breasted Roller *Coracias caudata*.

Adults of both sexes exhibit the same striking plumage coloration, which features dark upperparts merging from glossy olive-green on the crown and nape to olive-brown variably tinged bluish on the upper back, scapulars and tertials, while the lower back and rump are rich cobalt blue, becoming greenish-blue on the upper tail-coverts. The forehead, chin and sides of forecrown are white, the cheeks and ear-coverts lilac-rufous, and the throat to breast lilac shaft-streaked with white, becoming dull mauve-pink on the lower breast and merging into greenish-blue on the lower underparts. Rich cobalt-blue extends from the bend of the wing to the lesser wing-coverts, becoming bluish-green on the median to secondary coverts, while the flight feathers are azure-blue proximally and deep purple-blue distally. A prominent feature is the elongated, attenuated tips

to outermost feathers of the blue tail. The bill is black and the iris is dark brown. Juveniles are markedly duller, especially on the throat and breast, which are cinnabar-brown shaft-streaked with buff-white and with faint lilac margins to some feathers, and there are no elongated, attenuated tips to the outermost tail-feathers.

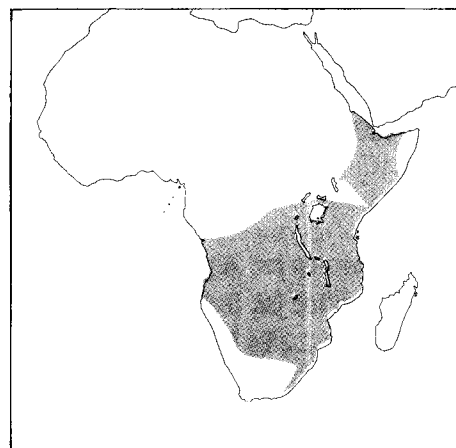
Two well-differentiated subspecies occur in the extensive range through much of eastern and southern Africa. The more familiar *C. c. caudata* is resident in the south, from Angola, southern Congo and Uganda, and central Kenya south to northern regions of the Republic of South Africa. Differing by having only the throat lilac, heavily shaft-streaked with white, and the breast azure-blue, migratory *C. c. lorti* is confined to north-eastern Africa, where breeding has been recorded in eastern Ethiopia and north-western Somalia to north-eastern Kenya, with wintering birds coming south to south-eastern Kenya.

In northernmost parts of the range, this species is uncommon, but elsewhere it is plentiful in open country, including farmlands, and I found it to be the roller most familiar to local people. It has a particularly broad habitat tolerance, being equally at home in dry open woodlands, grasslands with scattered trees, subdesert scrublands, light forest, riparian woodlands, gardens or cultivated fields, and even in

treeless grasslands, provided that fences or telegraph wires are available for perching. In the south, it tends to avoid more wooded areas, where it is replaced by the Racket-tailed Roller *Coracias spatulata*. In the Nchalo district, southernmost Malawi, I found it to be particularly abundant, and one of the most conspicuous birds in all open habitats, including treeless sugarcane plantations, where roadside powerlines were utilized for perching.

Lilac-breasted Rollers are bold, garrulous birds, and it is virtually impossible to overlook their presence. Typically, they are met with as individuals perched on topmost branches of trees or at regular intervals along roadside fences and telegraph wires, their bright plumage coloration and elongated outermost tail-feathers aiding identification. A bird may have a favored vantage perch, on which it can be seen sitting day after day for weeks on end. Though not infrequently encountered in pairs or more rarely in small groups, these rollers seem to prefer perching solitarily, and even apparently paired birds will sit well apart on a powerline or on topmost branches of adjoining trees, rather than in the same tree; this spacing probably increases the hunting opportunities for each individual.

Quarrelsome and decidedly territorial, these rollers often are involved in aggressive interactions. With strident calling, a bird will swoop down to chase off any approaching intruder, and at times physical contact will occur. With outspread tails uplifted and crests raised intermittently, two birds, pre-



Distribution of the
Lilac-breasted Roller
Coracias caudata

sumed to be rival males, were seen calling loudly at each other from perches atop a bush. One would thrust forward at the other, and then facing each other they would fly upward with beating wings, one clawing at the other. Should one obtain a hold, both would fall to the ground and struggle for a while before one would break free and fly up some 10 m into the air, rolling over once or twice, and then sail down to the perch, where he would give his cry.

Lilac-breasted Rollers are attracted to fires and can be seen in mixed assemblages of birds that gather immediately in front of or behind the advancing flames, where fleeing or injured insects and small reptiles or mammals are easy prey. At other times, they spend much of the day sitting on a vantage perch and scanning the ground below for the appearance of prey. As soon as prey is sighted, the roller swoops down to the ground, grasps the insect or reptile in its bill, and either consumes the catch there or brings it back to be struck repeatedly against the perch before being swallowed.

Food comprises small arthropods and vertebrates, with favored prey being large grasshoppers, locusts, crickets, beetles, moths and their larvae, including hairy caterpillars, and some butterflies. Also taken are spiders, scorpions, centipedes, snails, small reptiles and small birds. A roller has been seen to swoop down on a flock of waxbills feeding on the ground, and a captive bird killed two finches that entered its cage. When a large grasshopper is captured, the jumping legs are pulled off, the body manipulated in the bill until the head faces the bird's throat, and then it is swallowed. One roller was seen to capture a frog, and then take eight minutes to swallow it.

The fairly fast, direct flight is undertaken with rapid, shallow wingbeats, and in the air the elongated outermost tail-feathers give these rollers a distinctive flight silhouette. Given during flight or while perched is the rapidly repeated, guttural *rak . . . rak* contact call, and during the rolling display flight it leads up to a harsh, raucous *kaaa . . . kaarsh*.

Spectacular aerobatics, accompanied

by loud calling, herald commencement of the breeding season, which is from March to July in the north and August to December in the south. Birds presumed to be displaying males fly strongly up into the air some 10 m to 15 m above the treetops, tip forward before falling with wings closed, then quickly gain speed with strong wingbeats, levelling out while twisting and rolling the body alternately right and left, and then sweeping up again with closed wings to tip forward and repeat the display flight before returning to their perches. As well as being an integral component of courtship, these display flights serve as territorial advertisements, and have been seen being performed by males after copulation or by pairs attempting to attract attention away from their nests or from newly fledged young.

The nest is in a hollow limb or hole in a tree, or less commonly in a hole in a terrestrial termitarium, and the 2 to 4 white eggs are laid on a rudimentary bed of a few pieces of grass overlaying decayed debris at the bottom of the hollow. Incubation by both sexes lasts approximately 23 days, and both parents bring food to the chicks. Newly-hatched chicks are naked, but acquire a covering of grey down at five days, and are fully feathered at 19 days. Some 35 days after hatching, the young birds leave the nest.

Of *Coracias* rollers, this probably is the species most commonly held in captivity, especially in South Africa, and it has been bred successfully in zoos, bird parks, and private collections. Once acclimatized it is hardy and longlived, though adequate protection against cold winds or driving rain must be provided and artificially-heated wintering quarters may be required at high latitudes.

A pair makes a most attractive exhibit in a large, planted aviary and, provided that the aviary is sufficiently spacious, the rollers may be held in a mixed collection with birds of comparable size. At Cotswold Wildlife Park, in Britain, a breeding pair shared with a single Common Bronze-winged Pigeon *Phaps chalcoptera*, a trio of Bamboo Partridges *Bambusicola thoracica* and a trio of Green Woodhoopoes

Phoeniculus purpureus an aviary that was approximately 7 m in length and width and 4 m in height. It is particularly interesting to note that the Green Woodhoopoes, also a coraciiform species, were especially tolerated, even being permitted by the rollers to perch on top of the nestbox containing a chick. Additionally, there are records of pairs being housed with lorikeets and *Pionus* parrots, *Cyanocorax* jays, and *Lamprolornis* starlings. Because fighting between rival males of these strongly territorial rollers can result in serious injury or even death, only one pair can be placed in an aviary.

Locusts, cockroaches, crickets, mealworms, and well-cleaned maggots are favored foods, especially when chicks are being reared. Other items in the diet include chopped day-old chicks, chopped lean meat, chopped hard-boiled egg and pink baby mice, to which may be added a sprinkling of powdered vitamin or mineral supplements and insectivorous mix.

For nesting, pairs will accept hollow logs or nestboxes, the latter having the advantage of facilitating a monitoring of nesting activities by regular inspections. Parrot nestboxes are suitable, and internally these should be 20 cm to 25 cm square and with a depth of approximately 40 cm to 60 cm, the bottom being filled to a depth of 10 cm with clean sawdust, wood shavings or decayed heartwood. Both parents share incubation and care of the chicks, which continue to be fed for about 10 days after leaving the nest, and during this post-fledging period the male parent is particularly protective of the youngsters. Young birds settle quickly and soon become confiding, often coming with their parents to take food from the hand.

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