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NOTES ON THE FEEDING BEHAVIOR, AGEING AND BIOMETRICS OF BURCHELL'S COUCAL *CENTROPUS BURCHELLII*

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During the first half of July 2012, a team undertook bird ringing for nine days at different locations in the Nylsvley Nature Reserve, Limpopo Province. On 6 July, we observed the feeding behaviour and eventual capture of three immature Burchell's Coucals. Two 12m, 4-shelf nets were erected within one meter of a thick and extensive reedbed, on the downstream side of a dirt road that crosses the Nyl River, close to the Jacana Hide (24° 38'S 28° 41'E). Our ringing station was about 100m from, and in full view, of the nets. A fourth immature coucal was caught and ringed two days later, in the bushveld adjacent to the river.

Feeding behavior

Early on 6 July, we caught and ringed a Lesser Swamp Warbler, amongst other reedbed species. This bird was retrapped several times during the course of the morning. Just as we were about to start another net round, I saw what appeared to be a mongoose quickly disappear into the reeds. When we got to the nets, we found our warbler, dead but still in the net pocket. I left the dead bird in the net and returned to the ringing station, whence we observed the nets with binoculars. Within a minute, an immature coucal came out of the reeds and stopped beneath the dead bird, and started to jump up and down, trying to get a hold of the bird.

Upon seeing this, I decided to remove the dead bird from the mist net and use it as bait in a clap trap. Within a minute, the coucal

re-appeared, saw the dead bird on the ground and was caught. I reset the trap with the same bird as bait. We just started to ring the first coucal when another immature coucal appeared from the same spot in the reeds, saw the dead bird, and was caught. I reset the trap with the same dead bird. We just started to ring and process the first two coucals when a third immature coucal appeared from the same spot in the reeds, saw the dead bird, and was caught as well.

The first coucal was clearly attracted to a live bird fluttering in the net approximately ½m above the ground. Subsequently, however, all three birds were attracted by a dead bird on the ground and were caught in quick succession. It is presumed that the three immature coucals and possibly their nest may have been close enough to the dirt road for them to have observed the Lesser Swamp Warbler fluttering in the bottom pocket of the mist net. That could also explain their attraction to the dead bird in the clap trap.

Hicks and Restall (1992) observed Pheasant Coucals *Centropus phasianus* attacking and killing manakins caught in a mist net. The coucals were presumably attracted to the birds by the fluttering of their wings. Although two manakins were killed, the coucals were unable to remove the dead birds from the net. Vernon and Dean (2005a) mentions that the Burchell's Coucal is a voracious and opportunistic predator and is known to attack adult birds caught in mist nets, swallowing both the bird along with the netting material.

Ageing of immature birds

Vernon and Dean (2005a) state that female coucals lay 2 - 5 eggs with an interval of 1 to 2 days between the laying of each egg. Brooding commences immediately after the laying of the first egg. So if all eggs are fertile and hatch in the sequence that they were laid, then age-related plumage differences between each coucal should be apparent. This was in fact the case (Figures 1 – 3).



The capture of the three immature coucals allowed for in-hand comparison of age-related plumage differences. The degree of brownish barring on the brownish-orange flight feathers was visibly different (Figure 1). The oldest bird had no white superciliary stripe, whilst the two younger ones had a very prominent white superciliary stripe. The eyes are already clearly light ruby-tinged in colour (Figure 2). Roberts 7 does not mention the presence of a white superciliary stripe in immature birds and also states that the eyes are orange in colour (Vernon and Dean 2005a) (the ruby colour was better than the photos printed here). All three birds had white-shafted feathers around the neck and on the mantle (Figures 2 and 3), and the head, mantle and back become darker. The youngest bird had a definite brown wash to its white throat whilst the eldest had a nearly white throat (Figure 3). For comparative purposes, a photo of a juvenile and an adult is included (Figure 4).

These three immature coucals are estimated to be between 30 to 40 days old. First flight for Black Coucal *C. grillii* is given as 28 days (Vernon and Dean 2005b). These observations show that the immature birds rapidly change into their adult plumage.

Mensural data

Roberts 7 gives no mensural data for juvenile or immature Burchell's Coucals. The mensural data for one juvenile, four immatures and one adult Burchell's Coucal is provided (Table 1).

None of the birds showed any primary feather moult. Head moult was visible only in the adult and juvenile birds. Tail moult was evident only in the juvenile bird. None of the birds had any brood patches. The mensural data provided in Table 1 compares well with those provided in Vernon and Dean (2005a).

Table 1. Mensural data for various ages of Burchell's Coucal.

Ring	Date	Age	Mass (g)	Wing	Head	Culmen	Tarsus	Tail
641870 ¹	20 Dec 2011	4	186.5	160	68.4	33.7	44.8	216
641873 ²	3 Apr 2012	2	181.2	172	62.6	33.4	41.5	223
641888	6 July 2012	3	164.9	167	63.9	30.1	43.2	218
641889	6 July 2012	3	163.7	161	62.0	30.0	44.1	217
641900	6 July 2012	3	165.0	177	63.9	31.3	45.4	228
641892	8 July 2012	3	201.3	169	63.9	31.3	45.6	219

1 - ringed at the Umhlangha WWTW, Kwa-Zulu Natal

2 - ringed at the Hartbeesfontein Voortrekker camping terrein, Cullinan, Limpopo Province

Acknowledgements

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References

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Figure 1: Decrease of barring on the flight feathers with age - oldest bird is on the left and the youngest on the right. Also note that recently moulted flight feathers have less or even no barring than older, unmoulted flight feathers on the same wing (middle).



Figure 2: Loss of the superciliary stripe with age - youngest bird is on the right and the oldest on the left. Also note the white throat of the older bird (left) and the brownish-tinged white throat of the younger bird (right). At this age, both birds have light ruby-tinged eyes.



Figure 3: Comparison of head, throat and breast colouration and presence of supercilium with age - youngest bird is in the middle and the oldest on the right. Note the ruby-tinged eyes in all three birds.



Figure 4: On the left is a definite juvenile Burchell's Coucal (ringed 3 April 2012 at the Hartbeesfontein Voortrekker camping terrain; 6-41873) and on the right is a definite adult Burchell's Coucal (ringed 20 December 2011 at the Umhlanga WWTW; 6-41870).