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Observations on the nesting and parental behaviour of Ashy-headed Laughingthrush *Garrulax cinereifrons*

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Ashy-headed Laughingthrush *Garrulax cinereifrons* is endemic to Sri Lanka, where it is restricted to wet lowland rainforest in the south-west of the country. It is considered Vulnerable because it has a small, declining population and range, which is also severely fragmented, owing to clearance and degradation of its forest habitat (BirdLife International 2001). The nest of the species was first recorded in 1984 (Banks and Banks 1987), 132 years after the species was discovered, and incubation and parental care have not yet been described (Henry 1998).

We observed the nesting of this species while conducting a long-term field study of mixed-species bird flocks in the Sinharaja World Heritage Reserve (6°26'N 80°21'E, 450 m). Laughingthrushes are common members of mixed-species flocks, being found in 47% of such flocks, and with 91% of individuals observed within mixed-species flocks (Kotagama and Goodale 2004). We observed a group of seven laughingthrushes, two of which we had banded (red/white was banded in August 2001, and pink/pink in September 2003).

Nest

On 24 December 2003, we saw the laughingthrush group by a nest that appeared to be almost complete. It was placed c.1.5 m from a stream in a liana *Calamus zeylonicus* of 33 mm diameter, which climbed approximately 20 m into the canopy. The nest was 5.3 m above ground, nestled between the stem and a leaf petiole. The outside of the nest was made of twigs with some dead leaves; the diameter was c.140 mm, and the height was 115 mm. The internal dimensions of the nest cup were 109 x 97 mm wide, and it was 72 mm deep. The inside of the nest was made of fine roots and vines, probably of *Lygodium* sp. The details of the nest are thus similar to those reported by Banks and Banks (1987) although the timing of nesting is different: Banks and Banks observed nesting in April. Recently, however, two other nests were found in the Sinharaja reserve in November (Warakagoda 2003) and December (Siriwardhene 2004).

Eggs

On the morning of 27 December there were no eggs in the nest, but at 07h00 on 28 December, there were three eggs, which is surprising given that birds

normally lay at 24-hour intervals. The eggs were green-blue and unspotted; they measured 19.9×25.8 mm, 19.6×24.9 mm, and 19.6×24.8 mm. These dimensions are comparable with the 18×25 mm reported by Banks and Banks (1987).

Nesting behaviour

Observations of nesting behaviour were conducted with 8×42 binoculars from a concealed position 15 m from the nest. Before egg-laying, the nest was infrequently visited by two laughingthrushes, although the entire group roosted c.20 m away. Incubation was carried out by at least two birds, although neither of the ringed birds were observed incubating. Usually, the group would approach to within 5–10 m of the nest, and one bird would fly directly to the nest to take over incubation. Incubation change-overs occurred every 10–30 minutes during early morning (07h00–08h00) and late evening (17h30–18h30), but much less frequently during most of the day (every 60–90 minutes). The group only rarely interacted with other species during incubation and remained within an area of about 150–200 m diameter, considerably smaller than the area they normally occupied.

On 11 January 2004, we noticed more frequent incubation change-overs, with three birds coming to the nest for the first time. On the next morning we confirmed that all three eggs had hatched. In contrast to incubation, all group members participated in feeding the chicks. Usually, the group approached the nest together, with birds sequentially feeding the chicks; the last bird to feed would then brood the chicks. Both ringed birds fed the chicks. Time intervals between feeding were similar to the intervals between incubation change-overs. The flock continued to move within the same small area and to use the same roosting site. Food items delivered to the nest appeared to be mostly insects, including small caterpillars, moths and grasshoppers.

At c.17h00 on 21 January, we found the group below the nest, uttering mobbing calls, and the nest

was empty, presumably having been depredated. The day before we had noted the laughingthrush group mobbing a Sri Lanka Blue Magpie *Urocissa ornata* that approached within 12 m of the nest. It is possible that the magpie was the nest predator, since it is known to have depredated the nests of two other species in the same area (Chaminda Ratnayake verbally 2004). Nest predation appears to be a high risk for this species, as three of the four nests that have been observed have been predated, with the exception being the nest seen by Siriwardhene (2004), found three days before all the chicks fledged.

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First record of Lesser Adjutant *Leptoptilos javanicus* for Bhutan

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At about 16h00 on 25 September 2004, I observed a Lesser Adjutant *Leptoptilos javanicus* in flight over Mathanguri ($26^{\circ}48'N$ $90^{\circ}58'E$) on the border between India (Manas National Park, Baksa district, Assam) and Bhutan (Royal Manas National Park). The bird circled over both sides of the border, before landing in

a small marsh 1 km from the border on the Indian side, from where my observations were made.

The bird was easily identified by its long stout bill, glossy black upperparts and white underparts. Greater Adjutant *Leptoptilos dubius* was eliminated by the glossy black (not bluish-grey) upperparts, lack of grey greater