

Observations on nest building and courtship behaviour of the Madagascar Flufftail *Sarothrura insularis*

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Notes sur la construction du nid et la parade du Râle insulaire *Sarothrura insularis*. La parade et la construction du nid d'un couple de Râles insulaires *Sarothrura insularis* sont décrites. Les observations ont été faites dans la forêt de Makira, située au nord-nord-est de Maroantsetra, dans le nord-est de Madagascar. Cette forêt, dont l'altitude varie entre 400 et 1.140 m, comprend 160.000 ha de forêt intacte et 460.000 ha de forêt secondaire. Le couple de *Sarothrura insularis* a été observé du 26 au 28 février 2003, à 840 m d'altitude, pendant la construction du nid. Durant cette période, le type de cris, la durée des accouplements et le comportement des deux sexes ont été notés. Seul le mâle construisait le nid et toutes les activités se déroulaient entre 06.00 h et 09.15 h. Pendant la période d'observation, 136 feuilles mortes de lianes de bambou *Cephalostachyum viguieri* furent apportées comme matériaux de construction. La durée d'accouplement était de $2,7 \pm 0,8$ sec (N=10, variant de 2–4 secondes). Le nid de forme ovale, aux dimensions de 219 x 145 mm, était situé à 1,6 m au-dessus du sol. L'ouverture, orientée vers l'est, était de 75 x 65 mm et la profondeur interne était de 65 mm.

The breeding biology of many species of Malagasy birds is becoming better known due to the recent increase in avian studies in the region, but there remain several species for which nests and breeding behaviour have never or poorly been described. Recent work has described only nests and nesting behaviour for several endangered and poorly known species on the Masoala Peninsula of north-east Madagascar, eg Bernier's Vanga *Oriolia bernieri*⁶, Madagascar Red Owl *Tyto soumagnei*⁴ and Madagascar Serpent-eagle *Eutriorchis astur*⁵. To add to our collective knowledge of breeding biology of Malagasy birds, I describe here courtship and nest construction by of a pair of Madagascar Flufftails *Sarothrura insularis* in Makira Forest, north-east Madagascar. Makira Forest is north to north-west of the town of Maroantsetra. It covers 460,000 ha of intermixed secondary growth and tavies (slash-and-burn agriculture), and 160,000 ha of intact primary forest. The wet season lasts from December to August. Elevation ranges from 400 to 1,140 m.

Observations of courtship behaviour and nest building

A courting pair of Madagascar Flufftails was located by following their distinct vocalisation, *bee-bee-bee*, on 26 February 2003, at 840 m above

sea level. The nest was discovered on the crest of a ridge in a hurricane-downfall regeneration area. Observations were conducted over three consecutive days: 26 February, at 06.25–09.00 hrs; 27 February, at 05.00–11.00 and 15.12–18.00 hrs; and 28 February, at 05.10–11.00 and 15.07–18.00. Nest observation time totalled 20 hours and six minutes. Courtship behaviour consisted of vocalisations, nest building, copulations and nest visits by the female. Only the male constructed the nest while the female walked around the nest vicinity, and on five occasions entered the nest. During nest observations, I observed a total of 136 deliveries of dead leaves taken from bamboo vines *Cephalostachyum viguieri* and small branches of an unidentified vine less than 1 m from the nest. Construction only occurred at 06.00–09.15 hrs, and no nest building or courtship was observed thereafter. The male carried nesting material in the bill and positioned it within the nest. Copulations occurred several times after the nesting material was positioned. All copulations occurred on a small dead branch and averaged 2.7 ± 0.8 seconds (N=10, range 2–4 seconds). The pair uttered a short *ii-ii-ii* during each mating. Several times after a period of nest-building activity, the male uttered a *tee-chh*, *tee-chh* (N=5) and the female responded with a *chh-*

chh (N=2) and entered the nest. The nest was near completion on the third day of observation.

Nest characteristics

The spherical nest was positioned on a bamboo vine 1.6 m above ground, and measured 210 by 145 mm. Nest depth was 65 mm, and the nest entrance was 75 x 65 mm and oriented east. The placement of this nest, 1.6 m above ground, differed from other reports for the species; Rand³ and Benson *et al*¹ mentioned ground nests, and Benson *et al*¹ also observed a nest 20 cm above ground. The period of nest construction by this pair of Madagascar Flufftails was in February, the wet season, similar to *Sarothrura* spp in tropical Africa, which also breed in the wet season, between November and April inclusive². It appears that Madagascar Flufftails time their breeding season to the start of the wet season. Those nests described by Rand³ and Benson *et al*¹ were observed in October, at the start of the wet season in Mandeny, in southern Madagascar.

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