

Rediscovery of the Chestnut-headed Nunlet *Nonnula amaurocephala* in Amazonian Brazil

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Resumen

Nonnula amaurocephala foi descrita no início deste século e poucas peles existem em museus. O registro anterior à redescoberta é de 1936. Nós observamos e capturamos indivíduos desta espécie no Parque Nacional do Jaú na Amazônia Brasileira. Informações sobre distribuição, comportamento e conservação de *N. amaurocephala* são aqui descritas.

Introduction

The Chestnut-headed Nunlet *Nonnula amaurocephala* (see p41) is a poorly known, restricted-range puffbird from central Amazonian Brazil with a very restricted range. This Brazilian endemic was first described in 1921 based on material sent to Frank Chapman by Emile Snethlage¹ and is represented sparsely in museum collections, the total number of published specimens being 11.

The original description cited a pair collected at Manacapurú (on the Rio Solimões), in Amazonas state, Brazil, by F. Lima of the Museum Emílio Goeldi, Belém in 1916¹. Around 1924, Samuel Klages collected six more specimens from the same site for the Carnegie Museum⁷. Later the Olalla brothers collected two females in 1935 at Codajás, Amazonas, with one specimen being deposited in the Stockholm Museum and the other in the museum of São Paulo^{2,5}. The last known specimen of *N. amaurocephala*, prior to our rediscovery, was collected at Membeca, also near Manacapurú, in September 1936⁵. See map for the location of collection sites.

New records

On 23 May 1992 AW found a pair of these striking nunlets along the left bank of the Rio Unini in the understorey of "igapó" forest (seasonally-flooded, black-water woodland). The Rio Unini is a large black-water tributary of the Rio Negro that runs almost east-west along the northern border of the Jaú National Park. The coordinates for the site are 1°35'S 61°40'W, located next to the small settlement of Zaraca (see map).

The Jaú National Park is located on the west bank of the Rio Negro and north of the Rio Solimões (Amazon) and covers an enormous 2,272,000 ha⁴. Its two main vegetation types are terra firme and igapó forest. Two

further records of *N. amaurocephala* followed from within the park's boundaries: a pair were mist-netted by AMPC on 23 January 1994 and a single was observed a few kilometres from this banding site by JFP and AMPC on 28 January 1994. The banding record came from along the Igarapé do Macaco, a small black-water tributary of the Rio Jaú (2°04'S 62°06'W; see Map). The pair, which were captured together in the same net in the understorey of seasonally flooded igapó forest, were banded and biometric data taken before being photographed (see p41) and released. Their measurements were as follows: wings, 59 and 64.5 mm; tail, 56 mm (one bird in moult); bill (tip to feathering), 24 and 28 mm; weight, 15 and 16 g. The second sighting involved a solitary individual seen briefly perched about 3-4 m up on the edge of flooded igapó forest.

Behaviour

Nothing has ever been published on the habitat or behaviour of *N. amaurocephala*. The following is a brief summary of notes from the first of our records, taken during eight minutes of observation.

The pair were found perching mostly 3-4 m up in the understorey of shaded igapó forest but occasionally as high as 7-8 m. When perched they showed a rather upright stance, moving their heads slowly and deliberately, presumably whilst searching for prey. They would remain quiet and motionless for short periods of scanning until they pursued prey in flight or moved to a new perch. They were rather confiding. However, both birds moved their tails nervously when alarmed by the observer approaching too closely. This response involved a series of 4-5 small jerks, first to the right, then reverting to the normal position and then jerking similarly to the left. During these movements the tail was either

slightly fanned or held closed. This behaviour has been noted in two other nunlet species, Rusty-breasted Nunlet *Nonnula rubecula* and Rufous-capped Nunlet *N. ruficapilla* and two puffbirds, White-chested Puffbird *Malacoptila fusca* and Crescent-chested Puffbird *M. striata* (AW) although the true nature of its function is unknown.

Both individuals were observed sallying short distances (0.5-3 m) to capture prey from either branches or foliage. After these foraging flights they flew on to another perch. No prey items were identified but their diet, in common with other nunlets, probably consists of arthropods. *N. rubecula* has been recorded taking large katydids up to 2.5 cm in length (AW pers. obs.).

The pair never perched close together, always remaining 15-30 m apart. Like several other nunlets their tendency to remain silent and immobile makes them particularly likely to be overlooked. No vocalisations were heard. Clarification of this species's voice (a repeated sharp tick in *N. rubecula*: M. Pearman in litt. 1994) will undoubtedly assist observers searching for it and lead to a greater understanding of its range, behaviour and habitat requirements.

Appearance

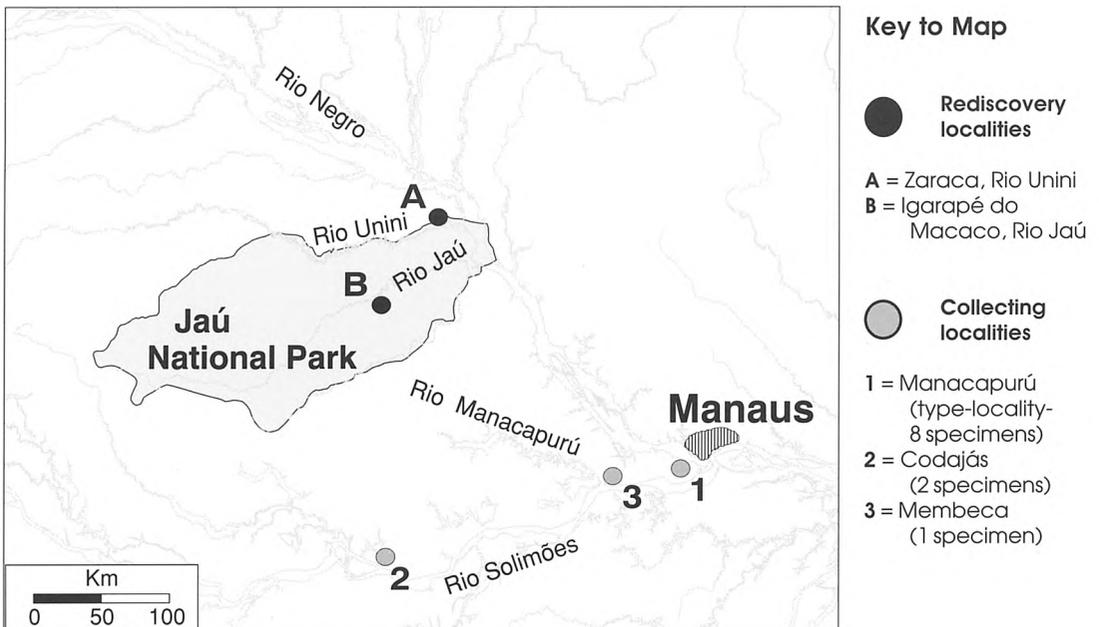
One of the pair observed in the field had brown irides and narrow pink orbital rings. The iris colour of the mist-netted pair was red, suggesting that immature birds may have duller eyes. This change from brown to red during maturation is not uncommon in other nunlets. The beak is long, slender, slightly decurved and strikingly coloured (blue-grey at the base with a black tip). In flight a pale olive wash to the rump was noticeable.

Habitat

The first pair were recorded in low (c.12-15 m tall) igapó forest, adjacent to flooded igapó and an abandoned clearing containing secondary forest. They were subsequently observed moving through secondary growth where thick vines climbed into the tree canopies and tangled in the lower bushes.

The fact that further records also derived from igapó forest suggests that this species is possibly confined to seasonally flooded black-water igapó forest. This habitat is widespread within the Rio Negro basin, west of the Rio Negro itself, and to our knowledge is not under any pressure from the local community.

The eight specimens collected from the



The distribution of Chestnut-headed Nunlet *Nonnula amaurocephala*

type locality of Manacapurú and from Membeca were certainly taken from igapó forest⁶. The only other site of collection, Codajás, has both terra firme and igapó forest⁶ but the specimens probably derived from the latter. Added to this evidence is the fact that *N. rubecula* was found to occur sympatrically with *N. amaurocephala* (four specimens of the former were collected by AW c.20 km from the rediscovery site of latter) but in terra firme forest, suggesting that the two species are ecologically separated by differential habitat preferences and are thus not found syntopically.

During observations of the *N. amaurocephala* pair, a single male Yellow-crowned Manakin *Heterocercus flavivertex* was observed along with a male Amazonian Black Tyrant *Knipolegus poecilocercus*. Both these species are known to inhabit igapó forest and its borders.

Range

N. amaurocephala appears to be restricted to central Amazonian Brazil being found only to the north of the Rio Solimões (Amazon) and west of the Rio Negro. The rediscovery of *N. amaurocephala* from the Rio Unini in the Jaú National Park extends the known range by some 260 km north-west from the type-locality at Manacapurú and 250 km north-north-east from Codajás.

Conservation

The conservation of this localised Amazonian species seems unusually straightforward. With the extensive Jaú National Park being fully protected and with no obvious threat to igapó forest apparent, the future of this endemic species looks remarkably secure.

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References

1. Chapman, F. M. (1921) Descriptions of apparently new birds from Bolivia, Brazil and Venezuela. *Amer. Mus. Novit.* 2: 1-8.
2. Gyldenstolpe, N. (1945) The bird fauna of the Rio Juruá in western Brazil. *Kungl. Svenska Vetenskapakad Handl.* 22(3): 1-338.
3. Hilty, S. L. & Brown, W. L. (1986) *A guide to the birds of Colombia*. Princeton: Princeton University Press.
4. IUCN (1992) *Protected areas of the world: a review of national systems, 4: Nearctic and Neotropical*. Gland, Switzerland and Cambridge, U.K.: International Union for Conservation of Nature and Natural Resources.
5. Pinto, O. M. O. (1938) Nova contribuição a ornithologia amazonica: estudo critico de uma collecção de aves do baixo Solimões e do alto Rio Negro. *Rev. Mus. Paulista* 23: 493-604.
6. Projecto Radambrasil (1978) *Levantamento de recursos naturais, vol. 18*. Rio de Janeiro: IBGE.
7. Todd, W. E. C. (1943) Studies in the jacamars and puffbirds. *Annals Carnegie Mus.* 30: 1-18.

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Chestnut-headed Nunlet *Nonnula amaurocephala*, Jaú National Park, Amazonian Brazil, January 1994 (André Carvalhaes) (see p48)



Tilled fields in the Río Caine valley, August 1993 (Robin Brace) (see p27)



Blue-throated Macaw *Ara glaucogularis*, Trinidad, August 1994 (Jeff Blincow) (see p 27)



Red-fronted Macaw *Ara rubrogenys*. party in flight over the Río Caine valley, August 1993 (Robin Brace) (see p27)