

Range extension for Many-banded Araçari *Pteroglossus pluricinctus* in Amazonian Brazil: conservation and biogeographical significance

Nine species of *Pteroglossus* occur in northern South America. Many-banded Araçari *P. pluricinctus* is a species of primary and old secondary lowland forest. The species is widespread in north-west Amazonia, in eastern Ecuador, north-east Peru, neighbouring Colombia and Venezuela, and reaches its eastern limit between the rios Negro and Solimões²¹, in Brazil, probably on the 'middle Rio Negro'²². Despite being large and noisy, distributional uncertainties persist concerning some species of *Pteroglossus* (e.g. *P. beauharnaesii*¹⁷). Here we present new records of *P. pluricinctus*, extending its known distribution eastwards both north and south of the Rio Negro.

Observations

On 20 July 2002, SHB observed at least three Many-banded Araçaris foraging in a 35–40 m emergent tree in Jaú National

Park (JNP), in the canopy of tall *terra firme* forest near the park's administrative headquarters at Monteiro (02°35'52"S 63°22'09"W: Site 1, Fig. 1). This is the first record of the species in JNP and the fourth *Pteroglossus* to be recorded in the park⁵.

On 1 November 2010 at 07h30, AAB observed a group of nine Many-banded Araçaris in the uppermost part of a dead tree c.7 m above the intact canopy of surrounding *terra firme* forest near Sitio Santa Rita (03°12'41.2"S 60°11'32.9"W: Site 3, Fig. 1), in Iranduba municipality, Amazonas (Fig. 1). The group called for c.6 minutes and then flew deeper into the forest in single file. The distance (250 m), conditions (slightly overcast but dry) and clear view, provided good observational conditions. The site is some 350 km east of the JNP locality.

As at JNP, three other *Pteroglossus* occur in the eastern part of the Negro–Solimões interfluvium (Ivory-billed *P. azara*, Chestnut-eared *P. aracari* and Lettered Araçaris *P. castanotis*). During both encounters just detailed, the presence of two

complete black breast-bands distinguished the birds from *P. castanotis* or *P. inscriptus*, whereas the dark bill with a white blaze on the upper mandible eliminated *P. azara*.

In August 2008 SHB observed five *P. pluricinctus* in low-stature secondary forest (00°14'8.3"S 62°48'13.2"W: Site 2, Fig. 1) at the foot of the Araçá Mountains, northern Amazonas. Other sympatric *Pteroglossus* are Green Araçari *P. viridis* (distinguished from *P. pluricinctus* by its smaller size, green back, unbarred breast and the presence of a horizontal red stripe on the bill) and *P. azara flavirostris* (distinguished from *P. pluricinctus* by bill pattern, and the absence of yellow / black breast-bands).

Discussion

South of the rio Negro, in the Negro–Solimões interfluvium, Restall *et al.*²¹ and Haffer¹³ indicated the species' easternmost limit to be the headwaters of the Jaú River, and questioned whether it might occur in the west of the Negro–Solimões interfluvium. Our records not only confirm that the species occurs at this easternmost boundary (cf. Fig. 1), but provide an eastward range extension of c.350 km, indicating that the species probably occurs throughout the Negro–Solimões interfluvium. North of the Negro, range maps for *P. pluricinctus*^{16,21} suggest the species occurs well west of the rio Branco (Fig. 1). The record in the Araçá Mountains is the first for *P. pluricinctus* east of the rios Padauri and Araçá, making it highly probable that its range reaches the rio Branco itself (see Fig. 1).

Presence in the Araçá Mountains is predictable being neither unusual in terms of habitat nor biogeography, given that there is no real barrier to the north-easternmost limits of the species' range, whereas the rio Branco is a major biogeographical barrier for many taxa¹⁸, including birds¹⁹. The Jaú region also lacks a major habitat disjunction, nor is it a broad river by Amazonian standards. For example,

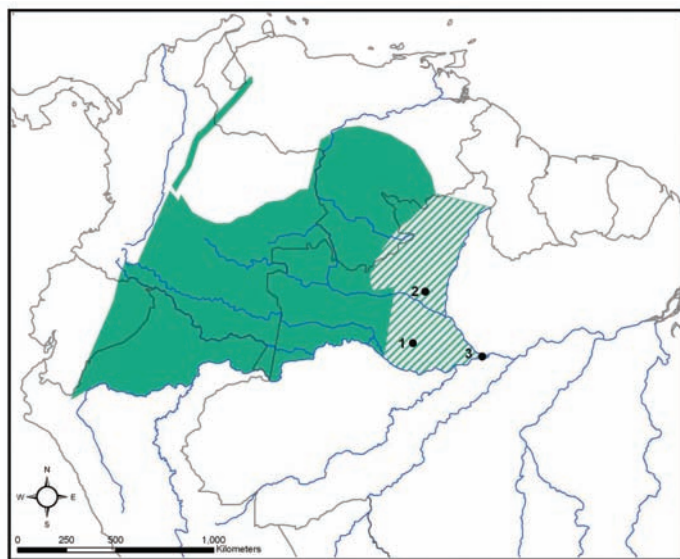


Figure 1. The distribution of Many-banded Araçari *Pteroglossus pluricinctus*. Dark green = previously documented range, hatched green = newly extended range. Sites: 1 = Jaú National Park; 2 = Araçá Mountains; 3 = Sitio Santa Rita.

Ramphastos toucans are often observed traversing the Jaú, and other rivers in the region (e.g. the Carabinani) in mere minutes, making this range extension within the Negro–Solimões interfluvium unsurprising. However, our records are of two-fold significance: firstly, the genus *Pteroglossus* was one of those employed by Haffer^{12–15} to illustrate the Pleistocene refugia hypothesis, the known distributions of its nine members conforming closely to several of these areas (cf. Lees & Peres¹⁷). In his analysis of the Amazonian avifauna, Haffer¹⁴ considered *P. pluricinctus* endemic to the upper rio Negro basin (the Imeri Centre of Endemism). However, as demonstrated here, the species' distribution is clearly broader than previously known. As with the greatly expanded distribution recently reported for Yapacana Antbird *Myrmeciza disjuncta*⁴, our observations reveal that the extent of the Imeri refugium needs to be modified; indeed such a south and eastwards extension as suggested by our *P. pluricinctus* data was proposed by Cracraft⁹ as long ago as 1988.

Secondly, our results reveal how much remains to be learned concerning the ranges even of obvious species like *Pteroglossus*. Furthermore, sites such as the Araçá Mountains are little visited and still as poorly known biologically^{1,6,11} as when Prance & Johnson²⁰ discussed their affinities 20 years ago. Sítio Santa Rita lies between Iranduba and Manacapuru, towns of >30,000 people, an area undergoing rapid land-use change following the construction of a bridge across the rio Negro at Manaus⁷. No complete environmental impact assessments were undertaken prior to the project's initiation, with the commissioned reports (e.g. De Souza Carvalho¹⁰) having little biological content. Remarkably, biogeographical reviews of central Amazonia show that, although the two municipalities most effected by new land usage are <100 km from the state capital Manaus, the area lacks adequate

inventories for most vertebrates (e.g. fish^{8,23}, bats², birds^{3,4}). These sightings underscore the need for rapid biological assessments, both for conservation planning and to test biogeographical models, not only in remote areas such as the Araçá Mountains, but also near towns such as Manacapuru and Iranduba. In the east of the Negro–Solimões interfluvium such inventories should serve both to establish protected areas and to record what currently exists.

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