

Corrections and additions to an annotated checklist of birds of the upper rio Urucu, Amazonas, Brazil

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Shortly after publication of the paper 'Annotated checklist of the bird species of the upper Rio Urucu, Amazonas, Brazil' (Peres & Whittaker 1991), AW became aware that several important records therein were erroneous. Various communications questioning the credibility of some records in Peres & Whittaker (1991) led him to undertake a thorough review of all data presented. Subsequently, an updated bird list was prepared for the area, combining all valid records by Peres & Whittaker (1991) as well as those made by AA, FP and M. P. D. Santos since 2003 (Aleixo *et al.* in press). Here we correct errors in Peres & Whittaker (1991), mostly misidentifications (many of them unnecessarily included and easily avoided); reinforce and expand on records whose importance was previously overlooked; correct the identity of species listed as uncertain; update taxonomy; and add important new data.

Research dates

AW's contributions to the checklist in Peres & Whittaker (1991) were gathered during a seven-day period of mist-netting and observations, on 28 December 1988–3 January 1989 (with Nadime Araújo Whittaker). AA and FP undertook research at the Urucu under the CT-Petro project, for a total 41 days as follows: 18 June–9 July 2003, 7–20 September 2004 and 29 September–5 October 2006; they surveyed birds at several sites (mostly in *terra firme* and creek-side forests) through observations, tape-recordings, mist-netting and collecting. Specimens are deposited in the Museu Paraense Emílio Goeldi, Belém, Brazil (MPEG).

Identification errors and uncertainties

RED-WINGED WOOD RAIL *Aramides calopterus*

This extremely poorly known species was noted by Peres, who supposedly identified it by voice, in creek-side forest along the rio Urucu, although elsewhere vocalisations of *A. calopterus* are considered unknown (Vaca *et al.* 2006). We believe this record should be withdrawn until evidence is presented to show that the much commoner Grey-necked Wood Rail *A. cajanea*, also found at the Urucu in the same habitat (Peres & Whittaker 1991; AA & FP pers. obs.), was not involved. The only confirmed Brazilian record of *A. calopterus* is from the upper rio Juruá (Gyldenstolpe 1945). A record reported by Stotz & Bierregaard (1989) from *terra firme* north of Manaus, Amazonas (east of the rio Negro), was later considered erroneous (Cohn-Haft *et al.* 1997).

RUDDY GROUND DOVE *Columbina talpacoti*

Reported as uncommon and associated with anthropogenic habitats at the Urucu (Peres & Whittaker 1991), but probably in error for Common Ground Dove *C. passerina*, the only ground dove recorded by AA & FP, who collected an adult male (MPEG 56994). *Columbina* populations presumably became established following intensive occupation and widespread habitat disturbance along the main road traversing the area, in the late 1980s. As *C.*

passerina is the only ground dove observed frequently and documented for the Urucu, we recommend removing *C. talpacoti* from the checklist for now.

CANARY-WINGED PARAKEET *Brotogeris versicolurus*

AA & FP observed Cobalt-winged *B. cyanopectera* (also tape-recorded) and Golden-winged Parakeets *B. chrysoptera chrysosoma* (also tape-recorded and collected [MPEG 56993]), apparently the first documented sympatry between these species. Records of *B. chrysoptera* at the Urucu represent a significant range extension, west across the rio Madeira (Collar 1997). As *B. c. chrysosoma* exhibits distinct bright yellow primary-coverts (and was not expected in the Urucu area), it might have been confused with *B. versicolurus*. Nonetheless, the extensive white mixed with yellow on the wing (very noticeable in flight) and longer tail of *B. versicolurus* should have prevented this error. At the Urucu, *B. chrysoptera* is outnumbered by the commoner *B. cyanopectera*, but is often found in small flocks in *terra firme* edge, mainly around 'Papagaio' lodge (04°51'S, 65°04'W). In contrast, *B. versicolurus* is a *várzea* species, occurring mostly along the Amazon (Aleixo & Poletto 2007), making it unlikely to occur so far from the Amazon's main channel. We recommend removing *B. versicolurus* from the list. Further field work in south-west Amazonian Brazil should reveal whether other populations of *B. c. chrysosoma* exist west of the Madeira.

RED-LORED PARROT *Amazona autumnalis*

This large *Amazona* is represented in Amazonian Brazil by the isolated and distinct population *A. a. diadema*, known only from the lower rio Negro basin and adjacent north bank of the Amazon to Barra do Rio Negro, in north-west Brazil (Collar 1997). The report of *A. autumnalis* as common at the Urucu (Peres & Whittaker 1991) represents the only known record south of the Amazon. AA and FP's surveys recorded only two *Amazona*: Yellow-crowned Parrot *A. ochrocephala* and Mealy Parrot *A. farinosa*; both were documented with tape-recordings. As *A. ochrocephala* is not listed by Peres & Whittaker (1991), it seems possible that records of *A. autumnalis* in fact refer to the former. Although *A. a. diadema* is documented to undertake seasonal movements from *terra firme* north of Manaus (Cohn-Haft *et al.* 1997; AW pers. obs.), with records as far as the west bank of the rio Negro in Jaú National Park (Borges *et al.* 2001), we prefer to regard this unique record of *A. autumnalis* as a misidentification and remove it from the list.

LESSER NIGHTHAWK *Chordeiles acutipennis*

January records presented in Peres & Whittaker (1991) must have referred to the similar Common Nighthawk *C. minor*, which is present during this period in Amazonia, and was observed by AW in December 1988 at the Urucu. On 30 September 2006, AA & FP observed a flock of c.30 *C. minor* flying high over the rio Urucu at dusk. Most records of *C. minor* in Amazonia occur during autumn migration, with few after December (Stotz *et al.* 1992). However, on 28 December 2006, AW observed a feeding congregation of 150+ c.7 km south of Presidente Figueiredo, Amazonas, and G. M. Kirwan (*in litt.* 2008) and H. Shirihai saw >100 leaving a roost at Iracema Falls, north of Presidente Figueiredo, on 14–15 December 2007. The only spring records of *C. minor* from Amazonia are by M. Cohn-Haft: three on 15–16 March 1989 at the Manaus INPA tower and large numbers during the first half of April 1989 at the Urucu (Stotz *et al.* 1992). *C. acutipennis* arrives later in Amazonia (March–April; AW pers. obs.), as do most austral migrants, by which time *C. minor* is very rare in the region. Because the only *Chordeiles* consistently observed at the Urucu is *C. minor*, and identification demands careful study of wing pattern, tail length and subtle differences in flight pattern, we recommend removing *C. acutipennis* from the list.

WHITE-CHINNED JACAMAR *Galbula tombacea*

Reported by Peres & Whittaker (1991) as common in forest edge, along roads and creek-side forest, but this must refer to the similar and closely related Bluish-fronted Jacamar *G. cyanescens*, its geographic replacement in south-west Amazonia (Haffer 1974). AA & FP recorded *G. cyanescens* very frequently, mostly in creek-side forest, where two adult males were collected, in 2003 and 2004 (MPEG 56992, 58291).

NYSTALUS SP.

Peres in Peres & Whittaker (1991) reported an unidentified puffbird, undoubtedly of the genus *Nystalus*, being most similar to 'Barred Puffbird *Nystalus striolatus*'. However, the correct English name of *N. striolatus* is Striolated Puffbird, not Barred Puffbird *N. radiatus*, which is found only in western Colombia and western Ecuador (Ridgely & Greenfield 2001). The field description by Peres certainly does not exactly fit any known puffbird, but is fairly close to *N. striolatus*, which we believe these birds must have been. Subsequently, AA & FP collected four *N. striolatus* at the Urucu, in 2003 and 2004 (MPEG 56996–98, 58289). Pairs and even small groups were frequently observed perched on wires beside the main road, particularly along the main creeks. *N. striolatus* is fairly common, particularly in creek-side forest, being especially vocal at dawn.

BLACK-NECKED ARAÇARI *Pteroglossus aracari*

South of the Amazon in Brazil, the range of *P. aracari* terminates well east of the Urucu, at the right bank of the rio Madeira (Short & Horne 2002). Thus, the Urucu record of *P. aracari*, where it was reported as uncommon in *terra firme* (Peres & Whittaker 1991), is more than 500 km west of its range, within a different centre of endemism. We therefore conclude that this entry must refer either to the similar Chestnut-eared Araçari *P. castanotis* (not recorded subsequently by AA & FP) or Brown-mandibled Araçari *P. azara* (five specimens obtained by AA & FP: MPEG 57012–57014, 58293, 61155). As all three are similar, especially *P. aracari* and *P. castanotis*, they can be misidentified. For example, the diagnostic chestnut ear-coverts of *P. castanotis* (vs. black in *P. aracari*) are easily overlooked in the field, except in perfect light (AW pers. obs.), regularly leading to confusion, e.g., at Alta Floresta, Pará (AW unpubl.). The known range of *P. castanotis* does include the Urucu (Short & Horne 2002), but given that AA & FP did not record it, we believe it best to regard the Peres & Whittaker (1991) records of *P. aracari* as misidentified *P. azara*. Future field work should reveal if *P. castanotis* also occurs.

LAFRESNAYE'S PICULET *Picumnus lafresnayi*

Reported by Peres & Whittaker (1991) as common in many different habitats at the Urucu, the first records south of the Amazon and a considerable range extension (Winkler & Christie 2002). However, the Urucu is within the known range of Bar-breasted Piculet *P. aurifrons* (Winkler & Christie 2002), which was collected by AW at Caitaú-Uará, Amazonas, c.240 km to the north-west (MPEG 49891–92); the two specimens possess mixed characters of the *flavifrons* and *purusianus* subspecies (Winkler & Christie 2002). We consider it best to await specimen confirmation of the identity of the Urucu piculet and, until then, it should be listed as *Picumnus* sp.

LITTLE WOODPECKER *Veniliornis passerinus*

Peres & Whittaker (1991) reported it as uncommon in *terra firme*, whereas Red-stained Woodpecker *V. affinis* was common. The only *Veniliornis* in *terra firme* in Amazonian Brazil south of the Amazon is *V. affinis*. To date, no *terra firme* sites in Amazonia hold more than

one species of *Veniliornis*, to our knowledge. Furthermore, in Amazonian Brazil *V. passerinus* is restricted to second growth beside rivers and on river islands. Distinguishing these two woodpeckers in the field can be problematic, especially given racial variation (AW pers. obs.). Furthermore, this genus generally spends much time in the midstorey and canopy, within fast-moving mixed-species flocks, making them often difficult to identify. We conclude that *V. passerinus* was a misidentification and should be removed from the Urucu checklist.

PYGMY/MOUSTACHED ANTWREN *Myrmotherula brachyura/obscura*

Identification as Pygmy Antwren *M. brachyura* was established by AW in 1988 and reconfirmed by AA & FP, who observed and tape-recorded this species during every visit to the Urucu, but were unable to find *M. obscura*, whose known range lies further west (AA & AW pers. obs.).

RUFOUS-WINGED ANTWREN *Herpsilochmus rufimarginatus*

Reported for the Urucu based on a sight record by Peres at a canopy platform (Peres & Whittaker 1991). AA and FP failed to find any *Herpsilochmus* there, except a new taxon being described by M. Cohn-Haft, which they documented through tape-recordings and a male specimen (MPEG 61157). However, the new taxon's phylogenetic affinities are probably closer to another species group, rather than *H. rufimarginatus*. Because the Urucu record of *H. rufimarginatus* is the only one from this interfluvium, and the nearest record is c.570 km south-east across the Madeira, at Pousada Rio Roosevelt, Amazonas (Whittaker submitted), we recommend removing it from the list due to the likelihood of confusion with the new *Herpsilochmus* mentioned above. Furthermore, AW also obtained tape-recordings of this new taxon, in November 2007, at Reserva de Desenvolvimento Uakarai, on the middle rio Juruá, (05°26'S, 67°17'W), only c.230 km to the south-west.

STRIATED ANTIBIRD *Drymophila devillei*

We conclude this species' entry was an error, as it was recorded as common in forest gaps and creek-side forests. This antbird is a bamboo specialist, always found in close association with bamboo, particularly *Guadua* species (Parker *et al.* 1997; AW & AA pers. obs.). The complete lack of bamboo at the Urucu reinforces our argument. AA and JP did not find *D. devillei* there, but *D. d. devillei* was tape-recorded and collected (MPEG 50005) by AW at Caítaú-Uará, from bamboo in *várzea* on the south bank of the rio Solimões, c.240 km to the north-west. Thus, if bamboo is eventually discovered in the Urucu, then *D. d. devillei* might also be found.

ASH-WINGED ANTWREN *Terenura spodioptila*

The only records of *T. spodioptila* south of the Amazon are of race *meridionalis*, which is endemic to the lower Madeira–Tapajós interfluvium, well to the east of the Urucu, within a different centre of endemism (Zimmer & Isler 2003). As *T. spodioptila* and the south-west Amazonian Chestnut-shouldered Antwren *T. humeralis* are very close vocally, we believe the *Terenura* noted by Peres & Whittaker (1991) is *T. humeralis*. A good tape-recording obtained by AA on 4 July 2003 of a *Terenura* in a mixed-species canopy flock near 'Papagaio' lodge (04°51'S, 65°04'W) matches very closely the recording of *T. humeralis* on Isler & Whitney (2002). Also, *T. h. transfluvialis* is known from the following documented records in the Juruá–Purus interfluvium near the Urucu: observations and tape-recordings from Reserva de Desenvolvimento Uakarai, on the middle Juruá (05°26'S, 67°17'W), c.230 km to the south-west, and Lábrea (AW unpubl.), whilst the holotype of *T. h. transfluvialis* is from

Hiutanaã, Amazonas, on the left bank of the Purus (Todd 1927). We recommend replacing *T. spodioptila* with *T. humeralis* on the checklist.

BLACKISH ANTIBIRD *Cercomacra nigrescens*

Recorded at the Urucu as hypothetical by voice, by M. Cohn-Haft, who was uncertain of the identification at the time (Peres & Whittaker 1991; M. Cohn-Haft pers. comm.). We can confirm that this record of *C. nigrescens* almost certainly refers to Black Antbird *C. serva*, whose loudsong pattern recalls some subspecies of *C. nigrescens* (AW pers. obs.). Furthermore, AA & FP did not record *C. nigrescens* but found *C. serva* to be the commonest *Cercomacra*, particularly in the extensive clearings along the main paved road, where several were tape-recorded and two adult males collected in 2003 (MPEG 57109–110). Finally, the hypothetical record of *C. nigrescens* at the Urucu was from *terra firme*, which is inconsistent with its ecological requirements in western Amazonia, where it is represented by the distinct *C. n. fuscicauda* in *várzea* and riverine forests. On the other hand, in this part of Amazonia, *C. serva* is the common understorey *Cercomacra* in *terra firme* (AA & AW pers. obs.). *C. nigrescens* should be removed from the Urucu list, pending documentation.

SLATE-COLOURED ANTIBIRD *Percnostola schistacea*

Easily confused with Humaitá Antbird *P. humaythae* (sensu Isler et al. 2007), the record of *P. schistacea* (Peres & Whittaker 1991), if correct, would extend the latter's range hundreds of km east; the nearest known records of *P. schistacea* to the Urucu are from Jutai Sustainable Development Area, over 400 km to the south-west, where AA and FP tape-recorded and collected five specimens in March 2006 (MPEG 60205–209). At the Urucu, AA & FP never recorded *P. schistacea*, only *P. humaythae*, including a good tape-recording obtained on 29 June 2003 in creek-side forest. We consider the record of *P. schistacea* a misidentification.

HARLEQUIN ANTIBIRD *Rhegmatorhina berlepschi*

This range-restricted obligate army ant follower is a Brazilian endemic restricted to the Madeira–Tapajós interfluvium (Zimmer & Isler 2003). As all *Rhegmatorhina* are allopatric, the Urucu record of *R. berlepschi* by C. Peres is a misidentification and almost certainly involved Hairy-crested Antbird *R. melanosticta*. During their field work, AA & FP tape-recorded and collected four specimens of *R. melanosticta* (MPEG 57152–155).

VARIEGATED ANTPITTA *Grallaria varia*.

Recorded as common in tall forest by Peres & Whittaker (1991), this record would be extremely significant as this antpitta is not known west of the Madeira, in the Purus–Madeira interfluvium (Krabbe & Schulenberg 2003). However, as the distinctive voice of this antpitta was not heard by AW, M. Cohn-Haft, or by AA & FP (all of whom are familiar with it), we recommend removing this species from the list.

SPOTTED ANTPITTA *Hylopezus macularius*

Recorded by Peres & Whittaker (1991) at the Urucu based on confirmed sight records and undisputed vocal recognition by C. Peres. *H. macularius* comprises three subspecies (*H. m. macularius*, *H. m. paraensis* and *H. m. diversus*), none of which is documented by specimens from near the Urucu (AW & AA unpubl.; MPEG specimens). However, *H. m. paraensis* is listed west of the Madeira, i.e. within the same centre of endemism (Ridgely & Tudor 1994, Krabbe & Schulenberg 2003). Because the ranges and morphological and vocal diagnoses of the different taxa of *H. macularius* in Amazonian Brazil are still poorly characterised, we have commenced a multi-character study to assess species limits. Until this is complete, we

recommend the Urucu record be treated as hypothetical, as this population could represent an undescribed taxon (AW and AA in prep.).

RED-BILLED WOODCREEPER *Hylexetastes perrotii*

To date, the only *Hylexetastes* documented west of the Negro and Madeira is Bar-bellied Woodcreeper *H. stresemanni* (Marantz *et al.* 2003); thus, this record is a misidentification. On 30 June 2003 AA & FP collected a female *H. stresemanni* in stunted *terra firme* on sandy soil near 'Papagaio' lodge (04°51'S, 65°04'W) at the Urucu (MPEG 57058), their only record of this rare low-density woodcreeper.

CHESTNUT-RUMPED WOODCREEPER *Xiphorhynchus pardalotus*

X. pardalotus exclusively occurs north of the Amazon and west of the Negro, in the Guianan Shield (Ridgely & Tudor 1994, Marantz *et al.* 2003), making its listing for the Urucu erroneous. AA & FP have tape-recorded and collected four *Xiphorhynchus* at the Urucu: Ocellated Woodcreeper *X. ocellatus*, Elegant Woodcreeper *X. elegans*, Striped Woodcreeper *X. obsoletus* and Buff-throated Woodcreeper *X. guttatus*. Given their close phylogenetic affinity (Aleixo 2002), the species most likely to be confused with *X. pardalotus* is *X. ocellatus*, which at the Urucu is strictly associated with creek-side forest. Indeed, the only *Xiphorhynchus* reported by Peres & Whittaker (1991) in creek-side forest was '*X. pardalotus*'. *X. ocellatus* was included by Peres & Whittaker (1991), but only from undisturbed tall forest. Tape-recordings and four specimens of *X. ocellatus* were obtained by AA & FP in 2003–04 (MPEG 57052–054, 58296). Purported records of *X. pardalotus* south of the Amazon between the lower rios Tapajós and Xingu (Zimmer 1934, Haffer 1997) were either misidentified or mislabelled specimens (Marantz *et al.* 2003).

CHESTNUT-CROWNED FOLIAGE-GLEANER *Automolus rufipileatus*

The only record was based exclusively on voice and thus listed as hypothetical (Peres & Whittaker 1991). We feel it best to remove the species from the list as the commonly heard rattle of the south-west Amazonian subspecies of Olive-backed Foliage-gleaner *A. infuscatulus purusianus* is almost impossible (without great experience) to separate from *A. rufipileatus* (AW & AA pers. obs.). Furthermore, most *Automolus* are readily captured in mist-nets and the species has not been caught at the Urucu despite considerable effort. Finally, in western Amazonian Brazil *A. rufipileatus* is primarily associated with early-successional vegetation along watercourses, entering *terra firme* only if extensive bamboo or vine tangles are available (AA & AW unpubl.). The lack of bamboo at the Urucu (where *A. rufipileatus* was supposedly recorded in high-ground *terra firme*), combined with vocal similarities between *A. rufipileatus* and *A. i. purusianus*, prompt us to recommend removing *A. rufipileatus* from the Urucu list.

STREAKED XENOPS *Xenops rutilans*

Almost certainly a misidentification, presumably of the rather similar Slender-billed Xenops *X. tenuirostris*, which was observed and tape-recorded by AA, on 2 October 2006, in sandy-soil stunted *terra firme* near the SUC-001 oilfield. Amazonian records of *X. rutilans* are mostly restricted to the forest-savanna ecotone at the region's southern border (Ridgely & Tudor 1994, Remsen 2003; MPEG specimens), e.g. at Alta Floresta, where it occurs in deciduous forest atop rocky outcrops in *terra firme* (AW pers. obs.). The complete lack of previous records in western Amazonian Brazil casts doubt on the Urucu record, which should be removed.

HELMETED PYGMY TYRANT *Lophotriccus galeatus* /
SNETHLAGE'S TODY-TYRANT *Hemitriccus minor*

Helmeted Pygmy Tyrant was recorded as common in undisturbed tall forest (Peres & Whittaker 1991), but this represents a misidentification as *L. galeatus* does not occur in south-west Amazonia (Fitzpatrick 2004). As to the actual species involved, there are two possibilities: Snethlage's Tody-Tyrant *Hemitriccus minor pallens* or Double-banded Pygmy Tyrant *Lophotriccus vitiensis congener*, both of which occur in *terra firme* and seasonally flooded forests in south-west Amazonia (Fitzpatrick 2004). The former was tape-recorded and collected at the Urucu by AA & FP in 2003 (MPEG 57167–170), thereby confirming records of *H. minor* in Peres & Whittaker (1991). On the other hand, the Urucu apparently lies well east of the easternmost records of *L. v. congener*: observations and tape-recordings at Reserva de Desenvolvimento Uakarai, on the middle Juruá, (05°26'S, 67°17'W) c.230 km to the south-west (AW unpubl.), Caitaú-Uará (MPEG 50130), where tape-recorded by AW in *várzea*, c.240 km to the north-west, and Jutai Sustainable Development area in March 2006 (MPEG 60236, also tape-recorded by AA in riparian forest), c.400 km to the south-west. We conclude that *L. galeatus* should be withdrawn from the Urucu list until some evidence is available.

YELLOW-BELLIED ELAENIA *Elaenia flavogaster*

Considering the complexity of field identification of all *Elaenia* and that this record was listed as uncertain, we recommend it be listed as *Elaenia* sp. *E. flavogaster* is extremely patchy and local in central Amazonia, with previously published records only from Alter do Chão, Pará (Sanaïotti & Cintra 2001) and south-east Amazonas (Aleixo & Poletto 2007), with unpublished sight records from a site c.30 km north of Manaus and Presidente Figueiredo, Amazonas, and the rio Araça, Roraima (AW pers. obs.). However, especially in savannas at the fringes of Amazonia, this species is common and more widespread (Aleixo & Poletto 2007). Several other *Elaenia* migrate to Amazonia, amongst them Small-billed Elaenia *E. parvirostris*, a common austral visitor, often at *terra firme* borders (AW pers. obs.). On 17 September 2004 AA collected a female *E. parvirostris* in disturbed *terra firme* near the Urucu headquarters (MPEG 58305).

YELLOW-OLIVE FLYCATCHER *Tolmomyias sulphurescens*

Although this widespread flycatcher is generally absent from *terra firme* in Amazonian Brazil, except *T. s. mixtus* in the easternmost part (Zimmer & Whittaker in prep.), western Amazonian records refer to *T. s. insignis*, which is associated exclusively with riverine habitats, including seasonally flooded white- (*várzea*) or black-water (*igapó*) forests, or mature river islands (Zimmer & Whittaker in prep.). A specimen of *T. s. insignis* was obtained, and tape-recorded, by AW at Caitaú-Uará on the south bank of the Solimões, c.240 km north-west of the Urucu, in *várzea* (MPEG 50109), whilst AW found it common, in November 2007, in riverine habitats (multiple tape-recordings) at Reserva de Desenvolvimento Uakarai, on the middle rio Juruá (05°26'S, 67°17'W), c.230 km to the south-west, and AA tape-recorded and collected another c.400 km to the south-west, at Jutai Sustainable Development area, in March 2006 (MPEG 60239). Because the Urucu records were from undisturbed *terra firme*, they certainly involved either Yellow-margined *T. assimilis* or Grey-crowned Flycatcher *T. poliocephalus*. We recommend withdrawing *T. sulphurescens* from the Urucu list until a specimen or tape-recording is available.

BLACK-TAILED FLYCATCHER *Myiobius atricaudus*

Species-level identification in this complex is very difficult (Ridgely & Tudor 1994, Fitzpatrick 2004), but recent field work throughout Amazonian Brazil has found Sulphur-rumped Flycatcher *M. barbatus* to be the widespread *Myiobius* (Cohn-Haft *et al.* 1997, Oren & Parker 1997, Zimmer *et al.* 1997, Borges *et al.* 2001). In contrast, in Brazil *M. atricaudus* is often associated with higher ground at the outer limits of the basin (AW pers. obs.). On 28 June 2003, AA & FP collected a female *M. b. amazonicus* in stunted *terra firme* on sandy soil near 'Papagaio' lodge (04°51'S, 65°04'W) at the Urucu (MPEG 57160), a species not listed in Peres & Whittaker (1991). It is probable that their record refers to the widespread *Myiobius*, which AW had identified during his visit but was omitted from the annotated list. Both *M. barbatus* and *M. atricaudus* were collected by AA & FP a few km apart at the upper Jutai, c.300 km south-west of the Urucu. Although it is possible that both *Myiobius* occur at the Urucu, we suggest waiting for specimens before listing *M. atricaudus* for the area.

LARGE-HEADED FLATBILL *Ramphotricon megacephalum*

Observed at the Urucu in undisturbed tall and creek-side forests, where it was common (Peres & Whittaker 1991), but *R. megacephalum* is a rather strict *Guadua* bamboo specialist (Parker *et al.* 1997). No *Guadua* bamboo has been found at the Urucu, and AA & FP failed to record the species during their surveys, but *R. megacephalum* was tape-recorded, in September 1992, by AW, at Caitaú-Uará, on the south bank of the Solimões, c.240 km north-west of the Urucu. If bamboo is eventually located at the Urucu, it is possible that *R. megacephalum* will be found there.

TROPICAL GNATCATCHER *Poliophtila plumbea*

Withdrawn from the Urucu list as its inclusion was based on a single sight record from the canopy of *terra firme*, which record almost certainly referred to the similar Guianan Gnatcatcher *P. guianensis*, a fairly common species in canopy *terra firme* flocks at the site (AW & AA unpubl.). In Amazonian Brazil, *P. plumbea* occurs locally in seasonally flooded white-water (*várzea*) or black-water (*igapó*) forest and forest edge with savanna and low *campina*, but is absent from *terra firme* (AW pers. obs.).

YELLOW-GREEN GROSBEAK *Caryothraustes canadensis*

This grosbeak was reported by Peres & Whittaker (1991), though the nearest localities are on the lower rios Negro and Madeira, well east of the Urucu (Ridgely & Tudor 1989). However, *contra* Ridgely & Tudor (1989), there are no known records of *C. canadensis* south of the Amazon in the Madeira–Tapajós interfluvium, where it is apparently replaced by Yellow-shouldered Grosbeak *Parkerthraustes humeralis* (AW pers. obs.; MPEG specimens). The Urucu record, if correct, would be the first south of the Amazon and west of the Tocantins, with the nearest south-bank records c.1,400 km to the east. Given that *C. canadensis* is striking and easily detected, as it travels in noisy flocks in the midstorey to canopy of *terra firme*, where it is usually fairly common, that AA & FP did not record the species at the Urucu appears highly suggestive that a mistake was made. Especially because this record would imply such an important range extension, we suggest excluding it from the Urucu list until evidence is available.

Confirmed noteworthy records

CRESTED EAGLE *Morphnus guianensis*

Checking an active raptor nest in late December 1988, discovered by Peres and assumed to be of an Ornate Hawk-Eagle *Spizaetus ornatus*, AW found instead an almost full-grown *M. guianensis*, with an adult nearby. The huge nest was in *terra firme*, in a c.45-m tall emergent tree, within a large open fork in the subcanopy, c.30 m above ground. Breeding records of this rare raptor are few (Thiollay & Bierregaard 1994). Breeding data from Bolívar, Venezuela, involve nest building in March (Hilty 2003), in south-east Peru a large chick was seen in March (Raine 2007), and at Manaus, Brazil, young hatched during the late wet season, in April (Bierregaard *et al.* 1984).

WHITE-WINGED POTOO *Nyctibius leucopterus*

A *N. leucopterus* was heard repeatedly by AW on the clear moonlight night of 30 December 1987, with which species he is very familiar, especially with its voice, from the Manaus area, having been involved in its rediscovery (Cohn-Haft 1993). As the species was considered hypothetical at the Urucu, it was not included in Peres & Whittaker's (1991) list of range extensions, although, at the time, this was the first record south of the Amazon. It was also unfortunately omitted from the account of the species' rediscovery (Cohn-Haft 1993). Subsequently, the species has been confirmed even further south-west than the Urucu, in western Acre, Brazil (Alvarez & Whitney 2003), and east to the right bank of the lower rio Xingu, at Estação Científica Ferreira Penna, in the Floresta Nacional de Caxiuanã, Pará (AW unpubl.), where it has been tape-recorded.

BAND-RUMPED SWIFT *Chaetura spinicaudus*

Recorded as uncertain in Peres & Whittaker (1991), but confirmed by AA & FP, who observed the species on all of their visits to the Urucu. Birds flying in flocks close to the ground were identified as *C. spinicaudus* based primarily on their bright, contrasting and rather restricted white rump, and fairly small overall size. Records of *C. spinicaudus* based on specimens exist for the lower Purus near the Urucu (Marín 2000).

BLACK-BELLIED THORNTAIL *Discosura langsdorffi*

The Amazonian population of this tiny hummingbird, *D. l. melanosternon*, is poorly known and very disjunct from the nominate of eastern Brazil, from Bahia south to Rio de Janeiro (Schuchmann 1999). Reported as common by Peres & Whittaker (1991), but not recorded by AA & FP. Principally an inhabitant of *terra firme*, where it is mainly observed in the canopy of large flowering trees, the species is easily overlooked (AW pers. obs.), and is rare in collections. However, further records from the Juruá interfluvium include: single females observed by AW (unpubl.), on 5 September 1992, at Caitaú-Uará, Amazonas, and, on 13 December 2007, at Fortuna, Amazonas, in the Reserva Extravista do Media Rio Juruá, on the left bank of the Juruá. These records are c.240 km north-west and c.210 km south-west of the Urucu. Both were feeding at flowering trees, one an *Inga* sp., in the subcanopy of *várzea/terra firme* transitional forest.

FIERY TOPAZ *Topaza pyra*

The important range extension reported by Peres & Whittaker (1991) has since been confirmed and reinforced by its discovery at several other sites in south-west Amazonian Brazil, including Tefé, just c.120 km north-west of the Urucu (Hu *et al.* 2000). Although present at the Urucu, *T. pyra* is apparently very scarce there, as it was not recorded by AA & FP.

BROWN-BANDED PUFFBIRD *Notharchus ordii*

Recorded by Peres & Whittaker (1991), but until the last decade the species was known only from a few field observations and specimens. With knowledge of its voice, *N. ordii* has been found throughout southern Brazilian Amazonia (AW pers. obs.). AA & FP recorded it during every trip to the Urucu, tape-recording several birds. One tape-recorded on 13 September 2004 was particularly responsive to playback, possibly indicating pre-breeding or breeding condition. *N. ordii* was also tape-recorded, on 9 September 1992, at Caitaú-Uará, Amazonas, c.240 km north-west of the Urucu (AW unpubl.) and was found at the Reserva de Desenvolvimento Uakarai, on the middle Juruá (05°26'S, 67°17'W), c.230 km to the south-west (AW unpubl.).

SHORT-CRESTED FLYCATCHER *Myiarchus ferox*

The presence of this common flycatcher at the Urucu was confirmed by AA & FP, who recorded it during every trip they made to the area, especially in the vicinity of disturbed habitats. On 22 June 2006 an adult male was collected (MPEG 57176).

GUIANAN GNATCATCHER *Poliophtila guianensis*

Previously unknown from the Juruá–Purus interfluvium (Ridgely & Tudor 1989), with the nearest south-bank records far to the east, on the right bank of the Madeira (Stotz *et al.* 1997, Whittaker in prep.). Fairly common in canopy *terra firme* insectivore flocks at the Urucu, with multiple observations (AW, M. Cohn-Haft & AA unpubl.). These records remain the sole to date from this interfluvium (Whitney & Alvarez 2005) and from the Inambari centre of endemism (Silva *et al.* 2005). Specimens and tape-recordings are essential to determine whether the Urucu records represent an unnamed population of this poorly known canopy species (AW & AA pers. obs.).

BLUE-BACKED TANAGER *Cyanicterus cyanicterus*

The first record south of the Amazon was reported by Peres & Whittaker (1991) and confirmed by AA & FP who observed and tape-recorded several flocks of 5–8 *C. cyanicterus* during every trip they made to the Urucu. These are the only records of *C. cyanicterus* south of the Amazon and west of the Madeira, in the Inambari centre of endemism (Silva *et al.* 2005). Further localities south of the Amazon include Borba, in the Madeira–Tapajós interfluvium (M. Cohn-Haft pers. comm.), and the Floresta Nacional de Caxiuanã, in the northern Xingu–Tocantins interfluvium (AW & AA unpubl.).

LINED SEEDEATER *Sporophila lineola*

The presence of this austral migrant, suspected by Peres & Whittaker (1991), was confirmed by AA & FP who obtained three specimens on 19–20 June 2003, i.e. during the austral winter (MPEG 57206–208). Flocks containing many immatures, as well as adult males, were observed in a large clearing on 3 and 6 July 2003.

Taxonomic changes

Since the publication of Peres & Whittaker (1991) several species confirmed at the Urucu have been subject to taxonomic revisions adopted by the Brazilian and South American checklist committees (CBRO 2007, Remsen *et al.* 2007). These changes, with the previous and current treatments and names, respectively, are as follows: Little Chachalaca *Ortalis motmot* / Speckled Chachalaca *O. guttata*; Chapman's Swift *Chaetura chapmani* / Amazonian Swift *C. viridipennis*; Long-tailed Hermit *Phaethornis superciliosus* / Great-billed

Hermit *P. malaris*; Yellow-billed Jacamar *Galbula albirostris* / Blue-cheeked Jacamar *G. cyanicollis*; White-necked Puffbird *Notharchus macrorhynchos* / White-necked Puffbird *N. hyperrhynchus*; Ivory-billed Araçari *Pteroglossus flavirostris* / Brown-mandibled Araçari *P. mariae*; Black-spotted Barbet *Capito niger* / Gilded Barbet *Capito auratus*; Warbling Antbird *Hypocnemis cantator* / Peruvian Warbling Antbird *H. peruviana*; Spot-winged Antbird *Pernostola leucostigma* / Humaitá Antbird *P. humaythae*; White-eyed Tody-Tyrant *Hemitriccus zosterops* / White-bellied Tody-Tyrant *H. griseipectus*.

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