

A range extension of Striped Manakin *Machaeropterus striolatus* (Bonaparte, 1838) (Aves: Pipridae) based on records from southwestern Brazilian Amazon

Edson Guilherme

Universidade Federal do Acre, Museu Universitário, Laboratório de Ornitologia. Campus Universitário, BR 364, Km 04, Distrito industrial, CEP 69915-900. Rio Branco, AC, Brazil.
E-mail: guilherme@ufac.br

ABSTRACT: This study extends the distribution of *Machaeropterus striolatus* in southwestern Brazilian Amazon based on two specimens deposited in the Museu Paraense Emilio Goeldi, in Brazil. One specimen came from Manoel Urbano in central Acre, and the other was obtained in the village of Fortaleza do Abunã in Rondônia. The specimen from Rondônia extends the known distribution of the species by approximately 450 km southeast of its known distribution. The records presented here indicate that the *M. striolatus* ranges much further into the lowlands of southwestern Amazonia than previously assumed.

The Western Striped Manakin *Machaeropterus striolatus* (Bonaparte, 1838) was for many years considered a subspecies of the Striped Manakin *Machaeropterus regulus* (Hahn, 1819). However, the two forms have a highly disjunct distribution, with *M. regulus* being found only in the Atlantic Forest of eastern Brazil, and the two forms differ markedly in their vocal repertoire and, to a lesser extent, their plumage (Snow 2004). The Western Striped Manakin is found in the western Amazon basin, from the foothills of the Andes to the lowlands of Peru, Brazil, Ecuador, Colombia, Venezuela, and Guyana (Snow 2004; InfoNatura 2007; Ridgely and Tudor 2009; Figure 1).

While this species is relatively well known from specimens collected in the far western Amazon basin, this study presents evidence that this species may also occur in the lowlands further east, from a review of the historical records of specimens deposited in the ornithological collection of the Museu Paraense Emilio Goeldi in Belém, Brazil (Table 1). In 1976, Mr. Geraldo Pereira da Silva, an employee of the Evandro Chagas Institute in Belém, collected a pair of Striped Manakins in the vicinity of the town of Manoel Urbano (near the BR-364 highway) in central Acre (Figure 1; Table 1). Guilherme (2009) recorded the occurrence of *M. striolatus* in central Acre based on the analysis of the historical records of the species within this region. As it was outside the known range of the species at that time, this record already pointed to an extension of its distribution to the lowland Amazon basin, extending from northeastern Peru (Schulenberg *et al.* 2010) and western Acre (Whittaker and Oren 1999; Guilherme and Borges 2011) to the southwestern Brazilian Amazon basin.

On June 4th, 2010, during a diagnostic survey of the area earmarked for the construction of a power transmission line between Porto Velho, in the Brazilian state of Rondônia, and Rio Branco, in Acre, I collected a female Striped Manakin (MPEG 70975, Figure 2). This female was caught in a mist-net in the vicinity of the village of Fortaleza do Abunã,

Rondônia (Figure 1; Table 1). The captured specimen was easily recognized as a female Striped Manakin due to its brownish chest band and the indistinct reddish streaking on the flanks (Figure 2). The preliminary identification of the specimen (MPEG 70975) in the field was confirmed by comparison with the *M. striolatus* specimens deposited in the ornithological collection of the Goeldi Museum. The specimen was record in *terra firme* forest surrounding a granite outcrop (09°46'06.2" S, 65°31'25.5" W, Figure 1). This region is known for its granite rock formations from the Mesoproterozoic Era (Adamy and Romanini 1990) that is extracted and crushed for sale as construction-grade gravel (pers. obs.).

The record of *Machaeropterus striolatus* in Fortaleza do Abunã is the first evidence of the occurrence of the species in the state of Rondônia and extends its known distribution approximately 450 km from Manoel Urbano in Acre (Figure 1). The Fortaleza do Abunã village is located on the left bank of the Abunã River, which is a left-bank tributary of the Madeira River (Figure 1). The Abunã forms the border between Brazil and Bolivia, which lies on the right bank. While Tobias and Seddon (2007) did not record the species during a two-day survey of the Bolivian side of the river adjacent to Fortaleza do Abunã, it seems likely that further fieldwork in this region will confirm its occurrence on the right bank of the Abunã, which would represent the first record for Bolivia.

It seems possible that the range of *M. striolatus* in the lowland southwestern Amazon basin is limited to the left bank of the Madeira River, which is not only a relatively large body of water, but also forms a distributional limit for the ranges of many small-bodied understory bird species. In fact, this river divides the Inambari center of bird endemism to the west from the Rondônia center, to the east (Cracraft 1985; Silva *et al.* 2005). At the present time, the record presented here represents the southernmost limit of the known distribution of the Striped Manakin in the Amazon basin.

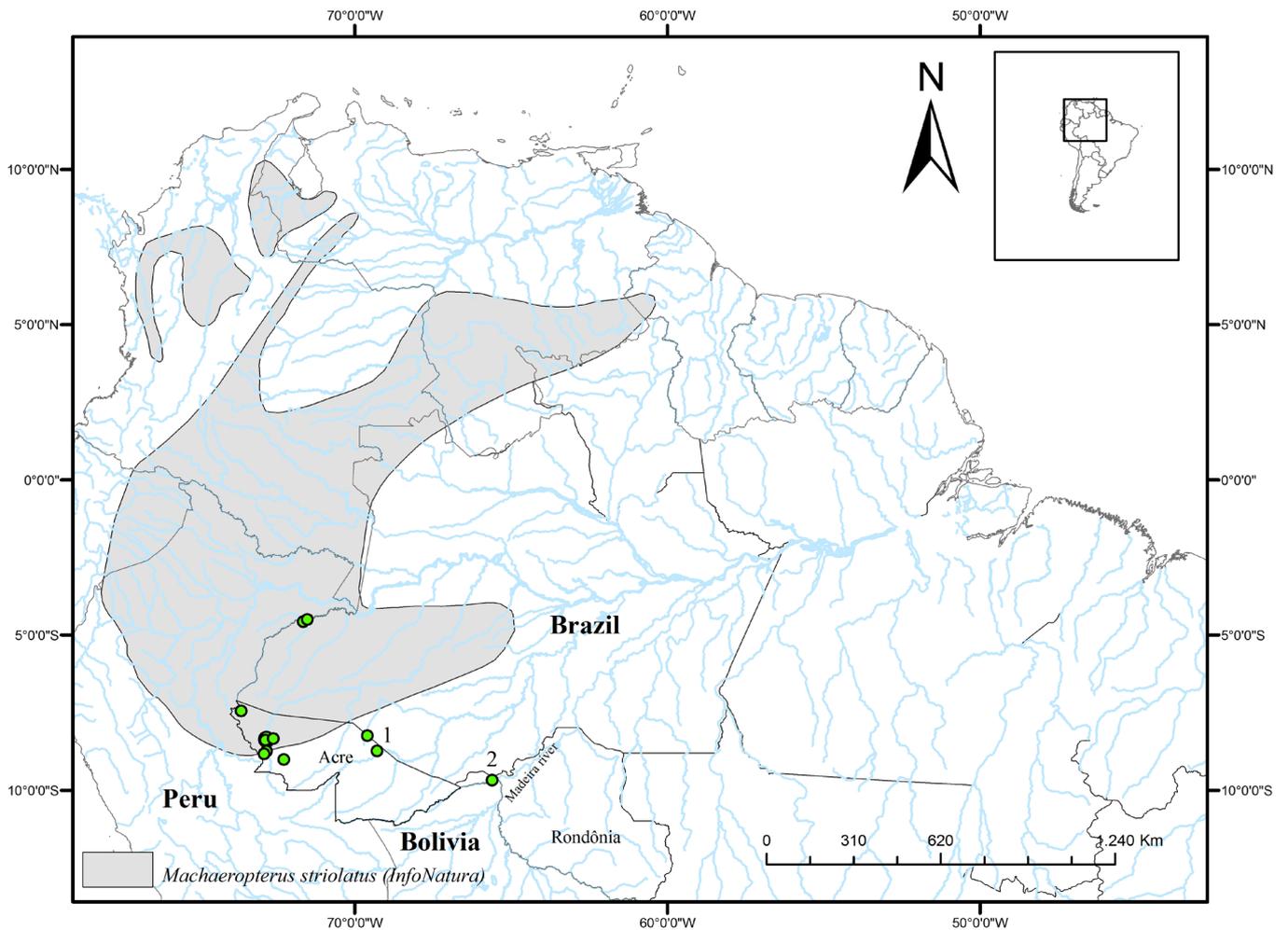


FIGURE 1. Geographic distribution of the Striped Manakin (*Machaeropterus striolatus*). The green circles indicate the sites at which the specimens deposited in the ornithological collection of the Goeldi Museum were collected. 1 – Vicinity of the town of Manoel Urbano (Acre); 2 – Vicinity of the village of Fortaleza do Abunã (Rondônia).

TABLE 1. Historical records of the Western Striped Manakin (*Machaeropterus striolatus*) from the southwestern Brazilian Amazon basin obtained from specimens deposited in the Goeldi Museum in Belém (Pará) Brazil.

LOCALITY	DATE	VOUCHER SPECIMENS
Javari River, Estirão do Equador, State of Amazonas	1959	MPEG 17007
Javari River, Estirão do Equador, State of Amazonas	1961	MPEG 18649
Road BR-364, Manoel Urbano, State of Acre	1976	MPEG 47881; 47882
Juruá River, left bank, locality Sobral, Cruzeiro do Sul, State of Acre	1992	MPEG 48365; 48366; 48367
Juruá River, right bank, locality Porongaba, Cruzeiro do Sul, State of Acre	1992	MPEG 48368; 48369; 48370; 48371; 48372; 48373; 48374
Tejo River, locality Restauração, Marechal Thaumaturgo, State of Acre	1994	MPEG 52226
Juruá River, left bank, locality Igarapé São Luiz, Porto Walter, State of Acre	1996	MPEG 52667
Upper Moa River, right bank, Mâncio Lima, State of Acre	1996	MPEG 52798
Ouro Preto River, left bank, Porto Walter, State of Acre	1997	MPEG 52934
Cruzeiro do Vale Stream, Colônia Dois Portos, Porto Walter, State of Acre	2007	MPEG 62135; 62136; 62137; 62138; 62139.
Jurupari river, Novo Oriente, Feijó, State of Acre	2010	MPEG 70043
Abunã River, Fortaleza do Abunã Village, Porto Velho, State of Rondônia	2010	MPEG 70975
Estirão do Equador, Atalaia do Norte, State of Amazonas	2011	MPEG 73085

According to Schulenberg *et al.* (2010), in Peru there are two distinct subspecies of Striped Manakin (*M. s. striolatus* and *M. s. aureopectus*). The last one (*M. s. aureopectus*) occurs only in the Andes foothills between 1000-1350 m above sea level. The distinction between the two forms can be observed in the male plumage. According to these authors the plumage of the females is indistinguishable. Seven of the 26 specimens deposited in the ornithological collection of the Goeldi Museum (Table 1) are males and all belong to the nominal form (*M. s. striolatus*). In Fortaleza

do Abunã the nominal form is expected to occur based primarily on the geographical distribution. However, since we have only female specimens from that locality, we cannot discard the possibility of *M. s. aureopectus* occurring in that region. Cases such as *Pachyramphus xanthogenys* Salvadori and Festa, 1898 and *Picumnus subtilis* Stager, 1968 are examples of species that were known only from the Andes foothills that were later recorded in the lowlands of the Amazon (Aleixo *et al.*, 2008; Rego *et al.*, 2009).

The bird fauna of the region known as “Ponta do Abunã” is still poorly studied. The unusual configuration of the local forest, which is punctuated by granite outcrops, suggests the possible presence of additional species yet to be confirmed for the region, as shown in the present study. Further ornithological surveys of this region should thus be prioritized. This recommendation is especially relevant given the many anthropogenic impacts at that region, such as selective logging, land clearance for cattle ranching, and, in particular, the ongoing proliferation of granite quarries.



FIGURE 2. Female Striped Manakin (*Machaeropterus striolatus*) captured in the vicinity of Fortaleza do Abunã on June 4th, 2010.

ACKNOWLEDGMENTS: I am grateful to Francislane Paulino and CEPEMAR (Serviços de Consultoria em Meio Ambiente LTDA) for the invitation to survey the study area, and also to Sr. Rêmoló Jarude for permission to conduct fieldwork on his property in Fortaleza do Abunã. The curators of the ornithological collection of the Museu Paraense Emílio Goeldi, Dr. Alexandre Aleixo and Fátima Lima, kindly provided information on the specimens deposited in that institution. Stephen Ferrari proofread the English. I also thank CNPq for its support through project number 474592/2010-3 (2010-2012).

LITERATURE CITED

- Adamy, A. and S.J. Romanini. 1990. *Geologia da região Porto Velho-Abunã. Folhas Porto Velho (SC.20-V-B-V), Mutumparaná (SC.20-V-C-VI), Jaciparaná (SC.20-V-D-I) e Abunã (SC.20-V-C-V). Estados de Rondônia e Amazonas*. Brasília: DNPM/CPRM. 273 p.
- Aleixo, A.; Guilherme, E. and Zimmer, K. J. 2008. First records of Yellow-cheeked Becard *Pachyramphus xanthogenys* for Brazil, with comments on the validity of *P. x. peruanus*. *Bulletin of the British Ornithological Club*, 128(4): 263-267.
- Cracraft, J. 1985. Historical biogeography and patterns of differentiation within the South American avifauna: areas of endemism. *Ornithological Monographs*, 36:49-84.
- Guilherme, E. 2009. *Avifauna do Estado do Acre: Composição, Distribuição Geográfica e Conservação*. D.Sc. Thesis. Belém: Universidade Federal do Pará/Museu Paraense Emílio Goeldi. 729 p.
- Guilherme, E. and S.H. Borges. 2011. Ornithological records from a campina/campinarana enclave on the upper Juruá river, Acre, Brazil. *The Wilson Journal of Ornithology* 123(1):24-32.
- InfoNatura 2007. *Animals and Ecosystems of Latin America. Version 5.0. Arlington, Virginia (USA): NatureServe*. Electronic Database accessible at: <http://www.natureserve.org/infonatura>. Captured on 31 December 2012.
- Rego, M.A., S.M. Dantas, E. Guilherme and P. Martuscelli. 2009. First records of the Fine-barred Piculet (*Picumnus subtilis*) for Brazil. *Bulletin of the British Ornithological Club* 129(3): 182-185.
- Ridgely, R.S. and G. Tudor. 2009. *Field Guide to the Songbirds of South America. The Passerines*. Austin: University of Texas Press. 750 p.
- Schulenberg, T.S., D.F. Stotz, D.F. Lane, J.P. O'Neill and T.A. Parker. 2010. *Birds of Peru*. New Jersey: Princeton University Press. 660 p.
- Silva, J.M.C., A.B. Rylands and G.A.B. Fonseca. 2005. O destino das áreas de endemismo da Amazônia. *Megadiversidade* 1(1): 124-131.
- Snow, D.W. 2004. Family Pipridae (Manakins); p. 110-169 In J. del Hoyo, A. Elliott and D.A. Christie (ed.). *Handbook of the Birds of the World. Vol. 9. Cotingas to Pipits and Wagtails*. Barcelona: Lynx Edicions.
- Tobias, J.A. and N. Seddon. 2007. Nine bird species new to Bolivia and notes on other significant records. *Bulletin of the British Ornithological Club* 127(1):49-84.
- Whittaker, A. and D.C. Oren. 1999. Important ornithological records from the Rio Juruá, western Amazonia, including twelve additions to the Brazilian avifauna. *Bulletin of the British Ornithological Club* 119:235-260.

RECEIVED: January 2013

ACCEPTED: November 2013

PUBLISHED ONLINE: November 2013

EDITORIAL RESPONSIBILITY: Vítor de Q. Piacentini