

New specimens extend the range of Serra Antwren

Formicivora serrana

Serra Antwren *Formicivora serrana* is endemic to part of the Brazilian Atlantic Forest biome. It generally inhabits dry scrub and low shrubby secondary woodland areas, especially in semi-deciduous forests⁶. Two subspecies are recognised: *F. s. serrana* and *F. s. interposita*. Restinga Antwren *F. littoralis* was originally described as a subspecies of *F. serrana* but has been treated recently as a species^{1,3,5}. The known range of *F. serrana* includes south-west Espírito Santo and south-east Minas Gerais, up to 1,550 m, as well as northern Rio de Janeiro to 700 m^{2,3,5}.

Label data of specimens housed in Brazilian collections (Museu de Zoologia, Universidade de São Paulo [MZUSP]; Museu Nacional [MN]; Laboratório de Bioacústica / [UFRJ]; Departamento de Zoologia da Universidade Federal de Minas Gerais [DZUFMG]; Museu de Zoologia Professor Mello Leitão [MBML]; Museu de Zoologia João Moojen de Oliveira, Universidade Federal de Viçosa [MZUFV]; specimens examined by DHF), North American collections (the latter retrieved from ORNIS ornithological information system, <http://olla.berkeley.edu/ornisnet/>,

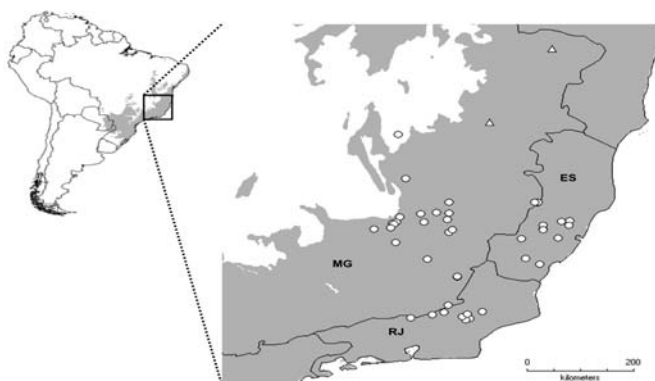


Figure 2. Map showing geographical records of *Formicivora serrana*. Circles indicate previously known records, while white triangles indicate new records (for specimens, see Fig. 1 and Appendix 1). The grey area represents the limits of the Atlantic Forest biome. MG = Minas Gerais, RJ = Rio de Janeiro, ES = Espírito Santo.

accessed 27 May 2010), and records compiled by Venturini & Paz⁴ indicate the municipality of São Gonçalo do Rio Preto (18°23'S 43°23'W; DZUFMG 4267) as the northernmost documented limit of *F. serrana*.

During recent ornithological surveys in north-east Minas Gerais, FRA & HBF collected four *F. serrana* at two localities north of the species' previously known range. After being attracted using recordings of *F. serrana*, a pair was collected between Almenara and Pedra Grande

(16°06'S 40°46'W; MZUSP pending number, field numbers BA09 and BA10, Fig. 1). In addition, two males were collected near Poté (17°43'S 41°49'W; MZUSP pending numbers, field numbers MG31 and MG37, Fig. 1). The entire region falls within the ranges of two similar congeners, Black-bellied Antwren *F. melanogaster* and White-fringed Antwren *F. grisea*⁵. Notwithstanding the similarity of *F. serrana* to the latter (especially in males), the individuals collected are diagnosable as *F. serrana* due to the much more rufous crown, back and tertial fringes, as well as the dark mask of the female (Fig. 1). The specimens reported here extend the northernmost limit of *F. serrana* c.200 km further north than previously known (Fig. 2). Further field research is needed to determine if the specimens collected in Almenara belong to an isolated population, or if the species is continuously distributed in areas of suitable habitat.

Notwithstanding it not being globally threatened, agricultural expansion and loss of habitat might threaten Serra Antwren. This range extension for a conspicuous and locally common bird reflects our scarce knowledge of the avifauna of parts of the Atlantic Forest biome, in this case the Jequitinhonha Valley region and areas in neighbouring



Figure 1. Specimens of *Formicivora* spp. From left to right: two male Serra Antwren *F. serrana* from Poté (MZUSP pending numbers, field numbers MG31 and MG37); male and female *F. serrana* from Almenara (MZUSP pending numbers, field numbers BA10 and BA09); male and female Black-bellied Antwren *F. melanogaster* (MZUSP 77742, MZUSP 81853); and male and female White-fringed Antwren *F. grisea* (MZUSP 83868, MZUSP 83423).

southern Bahia. Additional field surveys of these areas will be important to better understand the distribution of the still poorly known local avifauna, and to improve conservation strategies for this biologically important area.

Acknowledgements

We thank the following curators for granting access to specimens in their care: Marcos A. Raposo (MN), Luís Fábio Silveira (MZUSP), Marcos Rodrigues, Leonardo E. Lopes and Marcelo F. Vasconcelos (DZUFMG), Rômulo Ribon (MZUFV), Gustavo Machado Prado (MBML) and Luiz Antônio Pedreira Gonzaga (UFRJ). Earlier versions of the manuscript benefited from helpful comments by Cristina Y. Miyaki and insightful discussions with Fábio Schunck. We acknowledge Cristina Y. Miyaki and Marcos A. Raposo for their support, expedition funding obtained from FAPESP and CNPq, and HBF and FRA also received funds from FAPESP, CNPq and CAPES. Specimens were obtained under IBAMA permit numbers 14673-1, 14531-1 and 02001.006636/2006-84.

References

- Collar, N. J., Gonzaga, L. P., Krabbe, N., Madroño Nieto, A., Naranjo, L. G., Parker, T. A. & Wege, D. C. (1992) *Threatened birds of the Americas: the ICBP/IUCN Red Data book*. Cambridge, UK: International Council for Bird Preservation.
 - Remsen, J. V., Cadena, C. D., Jaramillo, A., Nores, M., Pacheco, J. F., Robbins, M. B., Schulenberg, T. S., Stiles, F. G., Stotz, D. F. & Zimmer, K. J. (2010) A classification of the bird species of South America. www.museum.lsu.edu/~Remsen/SACCBaseline.html (accessed 23 March 2010).
 - Ridgely, R. S. & Tudor, G. (1994) *The birds of South America*, 2. Austin: University of Texas Press.
 - Venturini, A. C. & Paz, P. R. (2005) Observações sobre a distribuição geográfica de *Formicivora* spp. (Aves: *Thamnophilidae*), no Estado do Espírito Santo, sudeste do Brasil. *Rev. Bras. Orn.* 13: 169–175.
 - Zimmer, K. J. & Isler, M. L. (2003) Family *Thamnophilidae* (typical antbirds). In: del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) *Handbook of the birds of the world*, 8. Barcelona: Lynx Edicions.
- Henrique Batalha Filho and Fábio Raposo do Amaral**
Laboratório de Genética e Evolução Molecular de Aves, Departamento de Genética e Biologia Evolutiva, Instituto de Biociências, Universidade de São Paulo, 05508-090, São Paulo, SP, Brazil. E-mail: fabioraposo@gmail.com.
- Daniel Honorato Firme**
Museu Nacional, Departamento de Vertebrados, Universidade Federal do Rio de Janeiro, 20940-040, Rio de Janeiro, RJ, Brazil.
- Appendix 1. Voucher specimens examined in Brazilian collections.**
Formicivora serrana: **Minas Gerais**: near Rio Doce: MZUSP 25243–245 (males), 25247 (male); Araponga: MZUFV 1412 (male); Poté: MZUSP pending, field numbers MG31 (male), 37 (male); Almenara: MZUSP pending, field numbers BA09 (female), 10 (male); Boa Esperança: MZUSP 25246 (male); Brumal: UFRJ 0346 (female), 0348 (male); Catas Altas: MN 44413–414 (males), 44416–418 (males); Ferros: MZUFV pending, field numbers CRMA210 (male), 211 (female); Mariana: MN 16980 (male), 16988–989 (males), DZUFMG 4275 (male), 4358 (male); Marliéria: MN 38595 (male); Rio Acima: MN 38592 (male); Rio Matipó: MZUSP 10384 (female); Rio Sacramento: MZUSP 10385 (female); Santa Bárbara: MN 38590 (male), DZUFMG 1047–1048 (males), 1049 (female), 3624, 3955 (males); São Gonçalo do Rio Abaixo: DZUFMG 3679–3680 (males); São Gonçalo do Rio Preto: DZUFMG 4267 (male); São Paulo de Muriaé: MN 16979, 16982, 16986 (males); Vargem Alegre: MZUSP 1563 (male); Viçosa: MN 38591 (male), MZUFV 823 (female), 839 (male), 840 (female); Volta Grande: MN 23989 (male); **Espírito Santo**: Baixo Gandú: MN 16978, 16983 (males); Jatiboca: MN 27247 (male); Santa Teresa: MN 26316, 27249, 44043, 44073 (males), MBML 6980 (male), 7268 (female); **Rio de Janeiro**: Carmo: MN 44424, 44611–612 (males); Macuco: MN 44423, 44387 (males); Santa Maria Madalena: MN 44403 (male); São Sebastião do Alto: MN 44422, 44613 (males); Sapucaia: MN 44438–439, 44610 (males); Trajano de Moraes: MN 36750, MN 44404 (males), UFRJ 0813 (male), 0814 (female); Três Rios: MN 44440 (male).
Formicivora melanogaster: **Piauí**: Parque Nacional Serra das Confusões: MZUSP 77742 (female); **Bahia**: Muquém do São Francisco: MZUSP 81853 (male).
Formicivora grisea: **Alagoas**: Fazenda Horizonte, Pilar: MZUSP 83423 (female); **Pará**: Santana do Araguaia: MZUSP 83868 (male).
- Appendix 2. Label data retrieved from ORNIS.**
(LSUMZ = Louisiana State University Museum of Zoology, Baton Rouge; and LACM = Los Angeles County Museum.)
Formicivora serrana: **Minas Gerais**: Dom Joaquim: LSUMZ 65176; Raul Soares: LACM 30154, 30155, 30224.

Received 7 December 2010; final revision accepted 1 January 2010 (published online 16 March 2011)