

Range extension of *Anthus nattereri* Sclater, 1878 (Aves: Motacillidae) in Minas Gerais, southeastern Brazil

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ABSTRACT: The distribution of *Anthus nattereri*, an endangered species, is extended at least 170 km to the north of the nearest locality in southeastern Brazil. New records of five individuals are provided from the municipality of Itabirito, within the Quadrilátero Ferrífero region, Minas Gerais state. *Anthus nattereri* was photographed and tape-recorded, sometimes in sympatry with *Anthus hellmayri*, a species it closely resembles. Records were made mostly on burnt open grasslands (“campos limpos”) making the conservation of this species a difficult task.

Savanna regions, although generally extensive in area, are often neglected with respect to conservation (Parker and Willis 1997). In Brazil, native grasslands are usually considered a poorly diversified habitat, and many times confused with artificial pastures (Lopes *et al.* 2010). The situation is critical for various grassland specialist birds because not many undisturbed open habitats still exist outside of the few national parks and biological reserves (Parker and Willis 1997; Lopes *et al.* 2010). One of those species is the Ochre-breasted Pipit *Anthus nattereri* Sclater, 1878, a large and little known representative of Motacillidae (Sick 1997), which inhabits grasslands and burnt fields (Parker and Willis 1997; Silveira and Straube 2008). *Anthus nattereri* occurs in southeastern Brazil, southern Paraguay and northern Argentina and is considered vulnerable both globally (BirdLife International 2011) and in Brazil (Silveira and Straube 2008), and endangered in Minas Gerais (Copam 2010). In this state the species is currently known from only five localities: Alfenas (21°25' S, 45°46' W), Monte Belo (21°19' S, 46°22' W) and Poços de Caldas municipalities (21° S, 46°33' W), Serra da Canastra National Park (20°15' S, 46°37' W) (Silveira 1998), and recently discovered at Chapada das Perdizes, Carrancas municipality (21°36' S, 44°34' W) (Lombardi *et al.* 2012).

Here, we present new records of *A. nattereri* in the state of Minas Gerais, representing a range extension of almost 170 km to the north, in relation to the nearest known locality (Lombardi *et al.* 2012) (Figure 1). Vocalizations were recorded using Sony PCM-M10 digital tape-recorder and Sony ECM-674 shotgun microphone. These recordings were deposited at the Arquivo Sonoro Elias Coelho (ASEC 16934 to 19400), Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil. Taxonomic nomenclature follows Comitê Brasileiro de Registros Ornitológicos - CBRO (2011).

On 20 September 2010, while conducting a bird survey at Itabirito municipality (20°13'42" S, 43°55'58" W – ca.

1,440 m above sea level), we heard the song of *A. nattereri* (Figure 2A) in a recently burnt “campo limpo” grassland. Several tape-recordings were made and the species responded to playback by vocalizing and approaching the tape-recorder, but did not perform its typical flight display (Silveira 1998). The bird continued walking and foraging for small insects (Figure 2B). At least another individual was heard in the same area, but it was not sighted. This area is located in the Velhas River Basin, a tributary of the São Francisco River, and is not situated within protected reserves. The vegetation consists of “campo limpo” and “campo sujo” grasslands alternated with semideciduous forests at the river drainages.

Almost two months later, on 4 November 2010, we returned to the same area looking for the species. Most of the burnt vegetation had regenerated, and many herbs

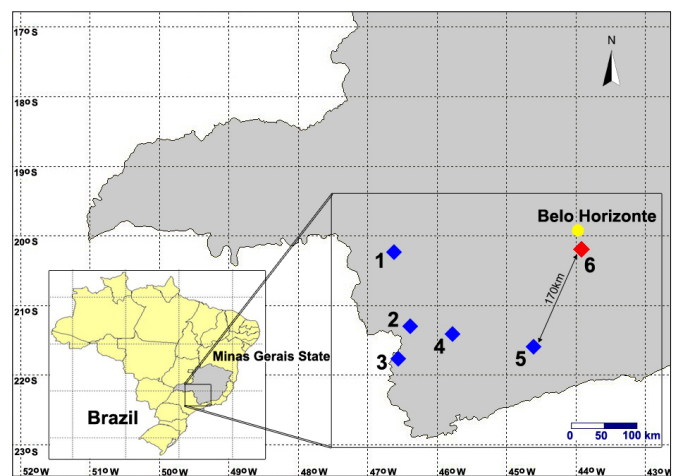


FIGURE 1. Geographic distribution of *Anthus nattereri* in Minas Gerais state, southeastern Brazil. The blue symbols correspond to published records of the species. Red symbol - present record; Yellow circle - Belo Horizonte city, capital of Minas Gerais state. Localities shown in the map are numbered as follows: 1 - Serra da Canastra National Park; 2 - Monte Belo municipality; 3 - Poços de Caldas municipality; 4 - Alfenas municipality; 5 - Chapada das Perdizes, Carrancas municipality; 6 - Present record, Itabirito municipality.

and flowers were present (Figure 2C). Ochre-breasted Pipits were recorded once again (Figure 2D), but they were much more active this time. About four to five individuals were heard and tape-recorded, and one of them was constantly in flight display. Birds did not attend to playback so aggressively, probably because territories were already established. On both encounters (September and November 2010) individuals of Hellmayr's Pipit *Anthus hellmayri* Hartert, 1909 were seen together with *A. nattereri*, as previously reported (Sick 1997; Silveira 1998; Lombardi *et al.* 2012).

The Ochre-breasted Pipit might have been overlooked in other suitable areas of the Quadrilátero Ferrífero, probably due to the difficulty of identifying the species in the field, and the sympatry with Hellmayr's Pipit. Playback surveys in other sites are recommended, in order to gather more information on this newly discovered population, as well as other species not yet recorded in the Espinhaço Range, such as Ocellated Crake *Micropygia schomburgkii* (Schomburgk, 1848), Sickle-winged Nightjar *Hydropsalis anomala* (Gould, 1838) and Campo Miner *Geositta poeciloptera* (Wied, 1830).

The preference of *Anthus nattereri* for recent burnt areas sets a challenge for its conservation, because the species usually disappears from overprotected reserves with tall grasses and places where agriculture and cattle

take over (Parker and Willis 1997). On the other hand, well preserved "campos limpos" can harbor many threatened grassland species, such as the Sharp-tailed Grass-tyrant *Culicivora caudacuta* (Vieillot, 1818), which was recently discovered at the Serra do Rola Moça State Park and Congonhas municipality (Lopes *et al.* 2010), both areas relatively close to the present records.

The sampled site is located next to the eastern slope of Serra da Moeda, within the Quadrilátero Ferrífero region, an area of 'special biological importance' (the highest degree of biological importance) amongst the 'Priority Areas for Biodiversity Conservation in the state of Minas Gerais' (Drummond *et al.* 2005). Main threats to this area are urban expansion, iron mining, fire and deforestation (Drummond *et al.* 2005). It is also important to note that the present location record is only about 22 km away from the urban core of Belo Horizonte municipality, in an area where the native grasslands, especially "campos limpos", are becoming scarce due to the expansion of condominiums and country houses. This expansion requires appropriate planning coupled with environmental education, in order to reduce pressures on the already threatened native grassland remnants. Creation of new conservation reserves and the maintenance of the natural fire regime would also be good strategies to preserve the populations of grassland specialists.



FIGURE 2. Photographic records of the Ochre-breasted Pipit *Anthus nattereri* and its habitat in the Quadrilátero Ferrífero region, Minas Gerais state, Brazil: A and B - burnt "campo limpo" grassland where the species was recorded on September 2010; C and D - same area on November 2010, with the grassland regenerated from the fire. Photos: Luiz Gabriel Mazzoni.

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LITERATURE CITED

- BirdLife International 2011. *Species factsheet: Anthus nattereri*. Eletronic Database accessible at <http://www.birdlife.org>. Captured on 28 March 2011.
- CBRO (Comitê Brasileiro de Registros Ornitológicos). 2011. *Listas das aves do Brasil*. 10ª Edição, 25 January 2011, Electronic Database accessible at <http://www.cbro.org.br>. Captured on 17 March 2011.
- Copam. 2010. *Deliberação Normativa COPAM nº 147, de 30 de abril de 2010: Aprova a Lista de Espécies Ameaçadas de Extinção da Fauna do Estado de Minas Gerais*. Minas Gerais (Diário do Executivo), 04 May 2010.
- Drummond, G.M., C.S. Martins, A.B.M. Machado, F.A. Sebaio and Y. Antonini. (ed.) 2005. *Biodiversidade em Minas Gerais: um atlas para sua conservação*. Belo Horizonte: Fundação Biodiversitas. 222 p.
- Lombardi, V.T., K.K. Santos, S.D'Angelo Neto, L.G. Mazzoni, B.Rennó, R.G. Faetti, A.D. Epifânio and M. Miguel. 2012. Registros notáveis de aves para o sul do estado de Minas Gerais, Brasil. *Cotinga* 34: *in press*.
- Lopes, L.E., G.B. Malacco, E.F. Alteff, M.F. Vasconcelos, D. Hoffmann and L.F. Silveira. 2010. Range extensions and conservation of some threatened or little known Brazilian grassland birds. *Bird Conservation International* 20(1): 84-94.
- Sick, H. 1997. *Ornitologia brasileira*. Rio de Janeiro: Nova Fronteira. 912 p.
- Silveira, L.F. 1998. The birds of Serra da Canastra National Park and adjacent areas, Minas Gerais, Brazil. *Cotinga* 10(1): 55-63.
- Silveira, L.F. and F.C. Straube. 2008. Aves; p. 379-666. In Machado, A. B. M., Drummond, G. M. and A. P. Paglia (ed.). *Livro vermelho da fauna brasileira ameaçada de extinção*. Volume II. Brasília: Ministério do Meio Ambiente. 1420 p.
- Parker, T.A. and E.O. Willis. 1997. Notes on three tiny grassland flycatchers, with comments on the disappearance of South-American fire-diversified savannas; p. 549-555 In J.V. Remsen (ed.) *Studies in Neotropical ornithology honoring Ted Parker*. Washington: The American Ornithologists' Union. Ornithological Monographs 48. 918 p.

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