

Rodent predation by *Turdus leucomelas* (Passeriformes: Turdidae)

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ABSTRACT: Pale-breasted Thrush (*Turdus leucomelas*) is described as an omnivorous bird that forage solitarily or in pairs on the soil. This note reports a rodent predation event by *T. leucomelas*. The event was recorded on November 14th 2013, in a riparian Forest fragment of Grande River, in Igarapava Municipality, São Paulo, Brazil. Although the presence of small vertebrates on the diet of *T. leucomelas* is known, this is the first record of a mammal being preyed by this bird species. This record is important because it contributes to a better understand of the natural history of Neotropical passerines.

KEY-WORDS: Diet, feeding, Pale-breasted Thrush, predation, rodent.

The Pale-breasted Thrush *Turdus leucomelas* Vieillot, 1818 (Passeriformes, Turdidae) (CBRO 2014) occurs in the South American continent, from the Guianas and Venezuela to Bolivia, Argentina, Paraguay and Brazil. In Brazil, it has a wide distribution, not occurring only in the central and western regions of the Amazonian forest and the eastern portions of Santa Catarina and Rio Grande do Sul states (Sick 1997, Mendes-Neto & Vasconcelos 2005, Sigrist 2013).

This thrush normally inhabits semi-forested areas, but it can be recorded in a variety of habitats, including urban areas (Sick 1997). Female builds a bowl-shaped nest, made up of clay, roots, and dried vegetal matter, on human constructions, ravines and hedgerows, in heights varying from 1 to 2.5m from the ground (Sick 1997). Two to three green-bluish red spotted eggs are incubated by the female for 10 to 12 days, when the nestlings are born (Mendes-Neto & Vasconcelos 2005, Sigrist 2013).

Pale-breasted Thrush is described as an omnivorous bird that forage solitarily or in pairs on the ground (Willis 1979, Sick 1997). From stomach content studies and direct observations in the wild, the diet of *T. leucomelas* was delimited: fruits, seeds, insects, arachnids, earthworms, gastropods, and small vertebrates, such as lizards and snakes (Moojen *et al.* 1941, Schubart *et al.* 1965, Poulin *et al.* 1994, Piratelli & Pereira 2002, Durães & Marini 2005, Lopes *et al.* 2005a,b, Lima *et al.* 2010, Sazima & D'Angelo 2011).

Although the capacity of preying small vertebrates by *T. leucomelas* has already been attested (Lopes *et al.* 2005b, Sazima & D'Angelo 2011), there is no report in scientific literature of this bird species preying upon small mammals. Thus, the aim of this short communication is to report on the first record of *T. leucomelas* preying upon a small rodent.

The event was recorded on 14 November 2013, at 03:30 PM, in a riparian forest fragment along the Grande River, in Igarapava Municipality, São Paulo, southeastern Brazil (19°59'22.53"S / 47°48'38.25"W; elevation: 497 m). The riparian forest fragment is located near a sugar-alcohol plantation and has many small ranches inside it.

Two Pale-breasted Thrushes were observed persecuting two small rodents through the litter. During the persecution, the thrushes tried to capture the rodents using their beaks; this behavior was recorded during 30 seconds, when one of the thrushes and one of the rodents run out of sight. The other thrush jumped into the rodent and captured it, holding the mouse against the ground with its beak. The mouse tried to escape wrestling, but he did not make it. Then, the thrush flew holding the dead mouse on its beak, first landing on the ground (Figure 1a) and then on a branch (Figure 1b).

In a study on the small mammal community at the same area, Corrêa (2014) recorded nine rodent species, with the species of the genus *Oligoryzomys* being the most frequent ones. Looking at the morphological



FIGURE 1. Pale-breasted Thrush (*Turdus leucomelas*) with a small dead rodent in its beak on the ground (A) and on a branch (B).

characteristics of the predated mouse, it is very likely that it belonged to this genus (see Carleton & Musser 1989).

Lopes *et al.* (2005b) suggested that vertebrate predation events by Neotropical passerines were rare, since these events were recorded in only 9% of the known species; among these, in only 18% of the species, small vertebrates other than frogs or lizards were recorded. Mammals were recorded in the diet of only 23 (11%) of the 203 species analysed, distributed in nine families, with Turdidae included (Lopes *et al.* 2005b). From the eight Turdidae species evaluated, only *Turdus migratorius*, native to North America, presented vestiges of mammals in its diet (Lopes *et al.* 2005b). These results suggested that the mammal predation by Neotropical passerines is even rarer.

According to Sazima & D'Angelo (2011), passerine birds hunt vertebrates mostly during the reproductive season, because feeding vertebrates to the nestlings and juveniles provide more proteins, calcium and energy to their development if compared to fruits and invertebrates. The predation event described herein occurred during the breeding season of *T. leucomelas* (October to December, Lobato *et al.* 2011), indicating that it may include vertebrates in the diet of their nestlings or that they ingest such items to complement their nutritional necessities during this critical period.

Vertebrate predation events by passerine birds have been recorded in the last decade; records came from stomach content studies (Chapman & Rosenberg 1991, Lopes *et al.* 2005b, Aguiar & Coltro-Jr 2008) and occasional sightings (Sazima 2007, Lima & Rodrigues 2008, Pizo 2008, Carvalho-Filho 2009, Mafia *et al.* 2011, Sazima & D'Angelo 2011, Brito *et al.* 2014), such as the one presented herein. Therefore, our record is important because it contributes to a better understand of the natural history of Neotropical passerines (Christianini 2005, Mesquita 2009).

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REFERENCES

- Aguiar, K. M. O. & Coltro-Jr, L. A. 2008. Dietas de algumas espécies de aves das famílias Thanminophilidae, Grallariidae e Formicariidae do Amapá. *Revista Brasileira de Ornitologia*, 16 (4):376-379.
- Brito, C. B. M.; Ribeiro, L. R. & Mendonça, S. V. 2014. An "increment" in the diet of the Pale-legged Hornero (*Furnarius leucopus* Swainson 1838, Furnariidae). *Atualidades Ornitológicas*, 180: 24-25.
- Carleton, M. D. & Musser, G. G. 1989. Systematics studies of oryzomyine rodents (Muridae, Sigmodontinae) - a synopsis of *Microroryzomys*. *Bulletin of the American Museum of Natural History*, 191: 1-83.
- Carvalho-Filho, F. S. 2009. Predação pelo bem-te-vi *Pitangus sulphuratus* (Passeriformes, Tyrannidae) no baiacu *Colomesus asellus* (Actinopterygii, Tetraodontidae) e camarão de água doce (Crustacea, Decapoda). *Revista Brasileira de Ornitologia*, 17 (1):77-78.
- Chapman, A. & Rosenberg, K. V. 1991. Diets of four sympatric amazonian wood creepers (Dendrocolaptidae). *Condor*, 93: 904-915.
- CBRO – Comitê Brasileiro de Registros Ornitológicos. 2014. Listas das aves do Brasil, 11th Edition. <http://www.cbro.org.br> (access on 03 September 2014).
- Christianini, A. V. 2005. A feeding record of the Short-tailed Hawk *Buteo brachyurus* in its southern range. *Revista Brasileira de Ornitologia*, 13 (2): 192-192.
- Corrêa, M. R. J. 2014. Influência da sazonalidade e variáveis ambientais sobre pequenos mamíferos não voadores em fragmentos de mata ciliar do Rio Grande, MG/SP. Dissertação: Universidade Federal de Ouro Preto.
- Durães, R. & Marini, M. A. 2005. A quantitative assessment of bird diets in the brazilian Atlantic Forest, with recommendations for future diet studies. *Ornitologia Neotropical*, 16: 65-83.

- Lima, A. M. X. & Rodrigues, R. C. 2008.** Predação do arapaçu-de-bico-torto *Campylorhynchus falcularius* Vieillot 1822 (Dendrocolaptidae) sobre anfíbios anuros em um remanescente de Floresta com Araucárias. *Revista Brasileira de Ornitologia*, 16 (4): 380-382.
- Lima, C. A.; Siqueira, P. R.; Gonçalves, R. M. M.; Vasconcelos, M. F. & Leite, L. O. 2010.** Dieta das aves da Mata Atlântica: uma abordagem baseada em conteúdos estomacais. *Ornitologia Neotropical*, 21: 425-438.
- Lobato, D. N. C.; Braga, E. M.; Belo, N. O. & Antonini, Y. 2011.** Hematological and parasitological health conditions of the Pale-breasted Thrush (*Turdus leucomelas*) (Passeriformes: Turdidae) in southeastern Brazil. *Zoologia*, 28: 771-776.
- Lopes, L. E.; Fernandes, A. M. & Marini, M. Â. 2005a.** Diet of some Atlantic Forest birds. *Ararajuba*, 13: 95-103.
- Lopes, L. E.; Fernandes, A. M. & Marini, M. Â. 2005b.** Predation on vertebrates by Neotropical passerine birds. *Lundiana*, 6 (1): 57-66.
- Mafía, P. O.; Souza, A. M. & Reis, M. J. 2011.** Registro fotográfico da predação de um vertebrado por *Lochmias nematura* (Passeriformes: Furnariidae). *Atualidades Ornitológicas*, 159: 4-5.
- Mendes-Neto, H. R. & Vasconcelos, M. F. 2005.** *Aves comuns do Estado de Minas Gerais: um guia de campo para o observador*. Florianópolis: Letras Brasileiras.
- Mesquita, P. C. M. D. 2009.** A record of predation on a poisonous toad *Rhinella granulosa* (Anura, Bufonidae) by Guira Cuckoo *Guira guira* (Cuculidae, Crotophaginae) in the state of Ceará, Brazil. *Revista Brasileira de Ornitologia*, 17 (1): 84-85.
- Moojen, J.; Carvalho, J. C. & Lopes, H. S. 1941.** Observações sobre o conteúdo gástrico das aves brasileiras. *Memórias do Instituto Oswaldo Cruz*, 36: 405-444.
- Piratelli, A. & Pereira, M. R. 2002.** Dieta de aves na região leste de Mato Grosso do Sul, Brasil. *Ararajuba*, 10 (2): 131-139.
- Pizo, M. A. 2008.** An apparent instance of predation on a Yellow-billed Cardinal (*Paroaria capitata*) by the Chopi Blackbird (*Gnorimopsar chopi*). *Revista Brasileira de Ornitologia*, 16 (3): 264-265.
- Poulin, B.; Lefebvre, G. & Mcneil, R. 1994.** Diets of land birds from northeastern Venezuela. *Condor*, 96: 354-367.
- Sazima, I. 2007.** Like an earthworm: Chalk-browed Mockingbird (*Mimus saturninus*) kills and eats a juvenile watersnake. *Revista Brasileira de Ornitologia*, 15 (3): 470-471.
- Sazima, I. & D'Ángelo, G. B. 2011.** The Pale-breasted Thrush (*Turdus leucomelas*) preys on a gekkonid lizard and an anomalepidid snake. *Revista Brasileira de Ornitologia*, 19 (3): 450-452.
- Schubart, O.; Aguirre, A. C. & Sick, H. 1965.** Contribuição para o conhecimento da alimentação das aves brasileiras. *Arquivos de Zoologia*, 12: 95-249.
- Sick, H. 1997.** *Ornitologia brasileira*. Rio de Janeiro: Nova Fronteira.
- Sigrist, T. 2013.** *Avifauna Brasileira*. São Paulo: Avis Brasilis.
- Willis, E. O. 1979.** The composition of avian communities in remanescent woodlots in southern Brazil. *Papéis Avulsos de Zoologia*, 33 (1): 1-25.