

SHORT COMMUNICATION

An unusual event of vertebrate predation by an insectivorous lizard

Um evento incomum de predação de vertebrado por um lagarto insetívoro

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Abstract

The knowledge about *Enyalius perditus* JACKSON, 1978 (Leiosauridae) indicates that the main food items are invertebrates. However, this communication is the first vertebrate predation report, the lizard *Hemidactylus mabouia* (MOUREAU DE JONNES, 1818) (Gekkonidae) in a remnant of Atlantic Forest in Ubatuba, state of São Paulo, Brazil. This record highlights the lack of knowledge concerning the natural history of *E. perditus* and adds information about types of prey as food source.

Keywords: Atlantic Forest, diet, feeding habits, natural history, prey-predator relationships.

Resumo

O conhecimento acerca da dieta de *Enyalius perditus* JACKSON, 1978 (Leiosauridae) indica que os principais itens alimentares são invertebrados. No entanto, a presente comunicação é o primeiro relato de predação de um vertebrado, o lagarto *Hemidactylus mabouia* (MOUREAU DE JONNES, 1818) (Gekkonidae), em um remanescente de Mata Atlântica no município de Ubatuba, estado de São Paulo, Brasil. Este registro destaca o conhecimento escasso relativo à história natural de *E. perditus* e adiciona informações sobre tipos de presas que podem ser utilizados como fonte de alimento.

Palavra-chave: Dieta, hábitos alimentares, Mata Atlântica, História Natural, relação presa-predador.

The genus *Enyalius* WIED, 1821 is currently composed by ten species of Neotropical diurnal lizards and occurs from the Amazon region to the Brazilian east coast, in the Atlantic forest biome (Rodrigues *et al.*, 2006). The preferences of invertebrates as food items are known for six of the ten species, which are *Enyalius bilineatus* (DUMÉRIL AND BRIBON, 1837) (diet in Vanzolini, 1972; Zamprogno *et al.*, 2001), *Enyalius brasiliensis* (LESSON, 1830) (diet in Dorigo *et al.*, 2014; Van Sluys *et al.*, 2004), *Enyalius catenatus* (WIED-NEUWIED, 1821) (diet in Vanzolini, 1972), *Enyalius iheringii* BOULENGER (1885) (diet in Sazima and Haddad, 1992), *Enyalius leechii* (BOULENGER, 1885) (diet in Vitt *et al.*, 1996) and *Enyalius perditus* JACKSON (1978) (diet in Sousa and Cruz, 2008). The diet of *Enyalius perditus* is composed of invertebrates, such as annelids, gastropods and arthropods found in the soil and on vegetation (Sousa and Cruz, 2008; Sturaro and Silva, 2010).

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Figure 1. A female of *Enyalius perditus* preying on an individual of *Hemidactylus mabouia* in an Atlantic Forest remnant in the municipality of Ubatuba, state of São Paulo, Brazil. Photography by Edelcio Muscat.

On 22 July 2015, around 10:00 AM, during field work in an area of 131.6 hectares of Atlantic Forest in the private reserve of the NGO Dacnis Project (23° 27.77' S, 45° 07.95' W, 36 m above sea level) in the municipality of Ubatuba, state of São Paulo, Brazil, we encountered a female of *E. perditus* preying on a *Hemidactylus mabouia* (MOUREAU DE JONNES, 1818) lizard (Figure 1). The *E. perditus* individual was sighted in the leaf litter and exhibited the defensive behavior of immobility after our approach. After photographic record (Figure 1), the observer (EM) moved away slowly from the site and observed the same lizard finish eating the *H. mabouia* individual.

Although it has been suggested that *E. perditus* are capable of selecting prey items despite not having a specialized diet, there is a strong preference for prey invertebrates (Sousa and Cruz, 2008; Teixeira *et al.*, 2005; Van Sluys *et al.*, 2004; Zamprogno *et al.*, 2001). The report of vertebrate predation by a lizard regarded as invertebrate

consumer (Barreto-Lima and Sousa, 2011) highlights the scarce knowledge concerning aspects of its natural history and adds information about the range of prey types individuals may use as food sources.

References

- BARRETO-LIMA A.F.; SOUSA, B.M.D. 2011. Feeding ecology and sexual dimorphism of *Enyalius perditus* in an Atlantic forest, Brazil. *Herpetological Bulletin*, **118**:1-9.
- DORIGO, T.A.; MAIA-CARNEIRO, T.; ALMEIDA-GOMES, M.; SIQUEIRA, C.C.; VRCIBRADIC, D.; VAN SLUYS, M.A.; ROCHA, C.F.D. 2014. Diet and helminths of *Enyalius brasiliensis* (Lacertilia, Iguania, Leiosauridae) in an Atlantic Rainforest remnant in southeastern Brazil. *Brazilian Journal of Biology*, **74**(1):199-204. <https://doi.org/10.1590/1519-6984.07612>
- RODRIGUES, M.T.; FREITAS, M.A.; SILVA, T.F.S.; BERTOLOTTI, C.E.V. 2006. A new species of lizard genus *Enyalius* (Squamata, Leiosauridae) from the highlands of Chapada Diamantina, state of Bahia, Brazil, with a key to species. *Phyllomedusa*, **5**(1):11-24. <https://doi.org/10.11606/issn.2316-9079.v5i1p11-24>

- SAZIMA, I.; HADDAD, C.F.B. 1992. Répteis da Serra do Japi: notas sobre história natural. In: L.P.C. MORELLATO (org.), *História natural da Serra do Japi: ecologia e preservação de uma área florestal no sudeste do Brasil*. Campinas, Editora da Unicamp, p. 212-237.
- SOUSA, B.M.D.; CRUZ, C.A.G. 2008. Hábitos alimentares de *Enyalius perditus* (Squamata, Leiosauridae) no Parque Estadual do Ibitipoca, Minas Gerais, Brasil. *Iheringia, Série Zoologia*, **98**(2):260-265. <https://doi.org/10.1590/S0073-47212008000200015>
- STURARO, M.J.; SILVA, V.X. 2010. Natural history of the lizard *Enyalius perditus* (Squamata: Leiosauridae) from an Atlantic forest remnant in southeastern Brazil. *Journal of Natural History*, **44**(19-20):1225-1238. <https://doi.org/10.1080/00222930903499796>
- TEIXEIRA, R.L.; ROLDI, K.; VRCIBRADIC, D. 2005. Ecological comparisons between the sympatric lizards *Enyalius bilineatus* and *Enyalius brasiliensis* (Iguanidae, Leiosaurinae) from an Atlantic Rain-Forest area in Southeastern Brazil. *Journal of Herpetology*, **39**(3):504-509. <https://doi.org/10.1670/9-05N.1>
- VAN SLUYS, M.; FERREIRA, V.M.; ROCHA, C.F.D. 2004. Natural history of the lizard *Enyalius brasiliensis* (Lesson, 1828) (Leiosauridae) from an Atlantic Forest of southeastern Brazil. *Brazilian Journal Biology*, **64**(2):353-356. <https://doi.org/10.1590/S1519-69842004000200021>
- VANZOLINI, P.E. 1972. Miscellaneous notes on the ecology for some Brazilian lizards (Sauria). *Papéis Avulsos de Zoologia*, **26**:83-115.
- VITT, L.J.; AVILA-PIRES, T.C.S.; ZANI, P.A. 1996. Observations on the ecology of the rare amazonian lizard, *Enyalius leechii* (Polychrotidae). *Herpetological Natural History*, **4**(1):77-82.
- ZAMPROGNO, C.; ZAMPROGNO, M.; TEIXEIRA, R.L. 2001. Evidence of terrestre feeding in the arboreal lizards *Enyalius bilineatus* (Sauria, Polychrotidae) of South-Eastern Brazil. *Revista Brasileira de Biologia*, **61**(1):91-94. <https://doi.org/10.1590/S0034-71082001000100012>

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