

First record of predation on the Amazonian Motmot, *Momotus momota* (Linnaeus, 1766), by the Paraguayan Rainbow Boa, *Epicrates crassus* Cope, 1862, in the Brazilian Cerrado

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Species of the genus *Momotus* Brisson, 1760 are medium-sized birds distributed from northern Mexico to South America, easily recognisable by their long tails ending in a racket shape (Stiles, 2009; Sandoval-Comte et al., 2014). The Amazonian Motmot *Momotus momota* (Linnaeus, 1766) is monogamous and usually nests in ground burrows. They occur mainly in areas of forest with a closed canopy, where they exhibit predominantly sedentary behaviour, suggesting a lower energy demand compared to smaller birds (Sandoval-Comte et al., 2014; Silva et al., 2023; Pesquero et al., 2025).

Like lizards and mammals, birds are among the vertebrates most frequently found in the diet of birds (Pizzato et al., 2009). The primary foraging method used by these predators to capture their prey is ambush behaviour, (sit and wait predation) and the use of locations with a higher flow or presence of potential prey has already been recorded for some species (Bernarde and Abe, 2010; Barbier et al., 2023). Species of the genus *Epicrates* Wagler, 1830 exhibit a diet predominantly composed of birds, rodents, and bats, and may also consume eggs, although this remains poorly documented (Pizzato et al., 2009; Fiorillo and Batista, 2019). Knowledge of feeding habits is fundamental for understanding the natural history of species and the interactions that occur within ecological communities (Falico et al., 2012; Linares et al., 2016).

The Paraguayan Rainbow Boa, *Epicrates crassus* Cope, 1826, is endemic to the Neotropical region,

occurring on the Andean slopes of Bolivia, Argentina and Paraguay, and predominantly in the Brazilian Cerrado where it mainly inhabits primary and secondary forests (Nogueira et al., 2019). It is distinguished from other members of the *Epicrates cenchria* (Linnaeus, 1758) complex by having a brown background colouration, light or dark, without drastic ontogenetic changes, like other species of the genus, it is nocturnal and is commonly found near water resources due to the high availability of prey (Passos and Fernandes, 2008). Although there are records documenting the diet of *E. cenchria*, little is known about other *Epicrates* species. In this context, we present here the first evidence of *M. momota* as prey of *E. crassus* in a conservation area of the Cerrado in Mato Grosso do Sul, Brazil.

On 16 November 2025, a guided group of tourists spotted an *E. crassus* preying upon a *M. momota* on the ground in a trail along the riverbank, at the Cânions do Rio Salobra (20.7786°S, 56.7464°W; SIRGAS2000; 216 m elevation), in Parque Nacional da Serra da Bodoquena, Mato Grosso do Sul, Brazil. At the time of recording, the snake had already partially swallowed the bird, and only the rear tail feathers were still exposed (Fig. 1; video available at <https://doi.org/10.6084/m9.figshare.30758819>). After recording this behaviour, the visitors were instructed to leave the area to avoid stressing the snake, which could interfere with its natural behaviour, inducing it to regurgitate the prey.

This record constitutes the first documented case of *M. momota* as a prey of *E. crassus*. Records of avian predation by *Epicrates* spp. are poorly documented in the literature compared with those involving mammals, particularly bats, which represent the most recurrent prey items for these snakes (Martin-Solano et al., 2016; Aya-Cuero et al., 2019; Genelhu et al., 2024). Leite and Dorado-Rodrigues (2017) previously reported *E. cenchria* visiting a nest of *Myrmotherula assimilis* Pelzeln, 1868. However, the authors only suggested prey consumption following the event, with no direct

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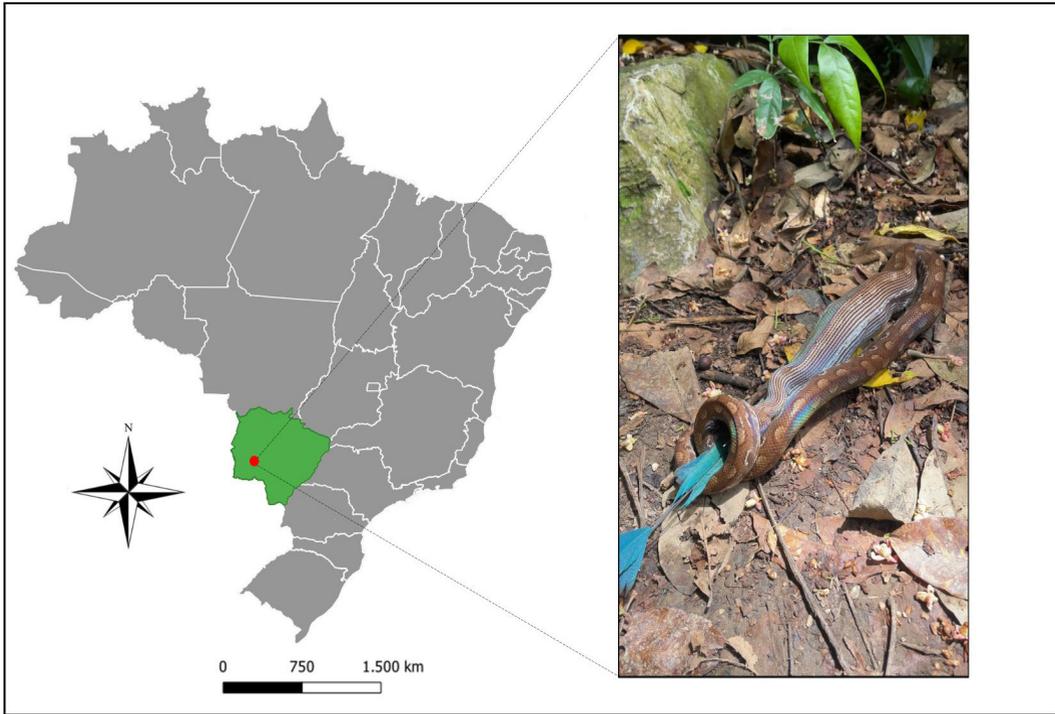


Figure 1. An individual of *Epicrates crassus* preying upon a *Momotus momota* at Parque Nacional da Serra da Bodoquena, Mato Grosso do Sul, Brazil. Photo by Max da Silva.

confirmation of ingestion. Direct and spontaneous field observations, such as the one reported here, even if not related to systematic sampling, contribute to increasing our knowledge on species interactions.

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References

- Aya-Cuero, C.A., Cáceres-Martínez C.H., Esquivel D.A. (2019): First record of predation on Greater sac-winged bat, *Saccopteryx bilineata* (Chiroptera: Emballonuridae), by the Colombian rainbow boa, *Epicrates maurus* (Serpentes: Boidae). *Herpetology Notes* **12**: 815–817.
- Barbier, E., Pimentel, N.T., Bernad, E. (2023): Predation of a mustached bat, *Pteronotus* sp. (Mormoopidae), by an Amazon tree boa, *Corallus hortulanus* (Boidae), in the Brazilian Amazon. *Acta Amazonica* **53**: 347–350.
- Bernarde, P.S., Abe, A.S. (2010): Hábitos alimentares de serpentes em Espigão do Oeste, Rondônia, Brasil. *Biota Neotropica* **10**: 167–173.
- Falico, D.A., López, J.A., Antoniazzi, C.E. (2012): Opportunistic predation upon dragonflies by *Pseudis limellum* and *Pseudis paradoxa* (Anura: Hylidae) in the Gran Chaco region, Argentina. *Herpetology Notes* **5**: 215–217.
- Fiorello, B.F., Batista, V.G. (2019): Predation on Gray Tinamou eggs (*Tinamus tao*, Tinamiformes: Tinamidae) by a rainbow boa (*Epicrates cenchria*, Serpentes: Boidae). *Herpetology Notes* **12**: 79–81.
- Genelhú, S.M.C., Machado, A.B., Simões, M.H., Zam-Paulo, R.A., Xavier, P., Ribeiro M.S., Pietro-Bom, T. (2024): *Epicrates cenchria* (Salamanta; Rainbow Boa) Diet. *Herpetological Review* **55**(1): 114–115.
- Leite, G.A., Dorado-Rodrigues, T.F. (2017): *Epicrates cenchria* (Salamanta; Rainbow Boa) Diet. *Herpetological Review* **48**(2): 449–450.
- Linares, A.M., Maciel-Junior, J.A.H., Mello, H.E.S., Leite, F.S.F. (2016): First report on predation of adult anurans by Odonata larvae. *Salamandra* **52**(1): 42–44.
- Martin-Solano, S., Toulkeridis, T., Addison, A., Pozo-Rivera, W.E. (2016): Predation of *Desmодus rotundus* Geoffroy, 1810 (Phyllostomidae, Chiroptera) by *Epicrates cenchria* (Linnaeus, 1758) (Boidae, Reptilia) in an Ecuadorian Cave. *Subterranean Biology* **19**: 41–50.
- Nogueira, C.C., Argôlo, A.J.S., Arzamendia, V., Azevedo, J.A., Barbo, F.E., Bérnills, R., et al. (2019): Atlas of Brazilian snakes: verified point-locality maps to mitigate the Wallacean shortfall in a megadiverse snake fauna. *South American Journal of Herpetology* **14**(1): 1–274.

- Passos, P., Fernandes, R. (2008): Revision of the *Epicrates cenchria* complex (Serpentes: Boidae). *Herpetological Monographs* **22**: 1–30.
- Pesquero, M.A., Veloso, S.L., De-Carvalho, C.B., Camarota, F., Arruda, F.V. (2025): Reproductive strategies of the widely distributed neotropical burrow-nesting bird *Momotus momota* (Aves: Momotidae) in tropical forest remnants. *Biota Neotropica* **25**(2): e20241741.
- Pizzatto, P., Marques, O.A.V., Facure, K. (2009): Food habits of Brazilian boid snakes: overview and new data, with special reference to *Corallus hortulanus*. *Amphibia-Reptilia* **30**: 533–544.
- Sandoval-Comte, A., Degante-González, A.P., Santiago-Alarcon, D. (2014): Predation of White Anole (*Anolis laevis*) by Blue-crowned motmot (*Momotus momota*) in a montane forest reserve in Veracruz, Mexico. *Herpetology Notes* **7**: 721–722.
- Silva, S.B., Pesquero, M.A., Veloso, S.L., Faria, L.M., Arruda, F.V. (2023): Breeding success of primary and secondary burrow-nesting birds on stream banks in central Brazil. *Acta Ornithologica* **57**(2): 221–227.
- Stiles, F.G. (2009): A review of the genus *Momotus* (Coraciiformes: Momotidae) in Northern South America and adjacent areas. *Ornitología Colombiana* **8**: 29–75.