Notas de História Natural & Distribuição Geográfica

Predation of *Micrablepharus maximiliani* (Reinhardt & Lütken, 1862) by *Cercosaura parkeri* (Ruibal, 1952) (Squamata: Gymnophthalmidae)

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Lizards serve important roles within their ecosystems because they are mid-level consumers in trophic networks, feeding on a range of invertebrate and vertebrate fauna, and plant material (e.g., fruits, leaves, flowers, floral buds; Valido & Nogales, 1994; Nogales et al., 1998; Lord & Marshall, 2001; Cooper & Vitt, 2002; Ribeiro & Freire, 2011; Rocha et al., 2021). Functionally, lizards can regulate populations, while also contributing towards ecosystem services by acting as seed dispersers and pollinators in the trophic networks (Martins & Molina, 2008). The foraging method of lizards underlies many of their ecological and behavioral characteristics, such as defensive behavior and diet (Huey & Pianka, 1981).

Lizards can be classified as omnivores, herbivores, and mainly carnivores, especially insectivores (Teixeira, 2001; Rocha et al., 2021). However, saurophagy accounts for approximately 30% of the records of lizards as prey species (Schalk & Cove, 2018).

The Blue-tailed Lizard *Micrablepharus maximiliani* (Gymnophthalmidae) is a small semi-fossorial species that uses termite mounds as shelter and is often associated with rocky outcrops, leaf litter, and sandy soils, frequently in open habitats (Rodrigues, 1996, 2003; Mesquita et al., 2006; Werneck et al., 2009). Parker´s Many-fingered Teiid *Cercosaura parkeri* (Gymnophthalmidae) is a diurnal species found in riverbanks and streams at open areas – including vacant lots and gardens – and forests, (Ávila-Pires, 1995; Cabrera et al., 2019). Insects and spiders comprise most of the diets of both species (Dal-Vechio et al., 2014; Cabrera et al., 2019).

On 12 November 2022, at the Pouso Alegre Lodge (16°28′25.6″ S, 56°45′37.5″ W; 125 m a.s.l.; DATUM WGS84), municipality of Poconé, northern region of Pantanal, state of Mato Grosso, Brazil, we found a dead, slightly desiccated *C. parkeri* (118.56 mm snout-vent length) in a 200-liter pitfall trap (Fig. 1A). Part of the lizard's body was torn open, and inside the body cavity we observed a *M. maximiliani* (22.48 mm snout-vent length) (Fig. 1B-C). The two lizards were fixed in 10% formalin, transferred to permanent storage in 70% ethanol (Heyer et al., 1994) and deposited in the Zoological Collection of Federal University of Mato Grosso, catalogue numbers UFMT–12947 (*C. parkeri*) and UFMT–12948 (*M. maximiliani*). The field studies were authorized by the System of Authorization and Information in Biodiversity, Ministry of the Environment (SISBio 83945-2).

We searched journals and platforms (Google Scholar, ResearchGate, and Scielo) for scientific papers using keywords ("predation", "lizard*", "*Pantodactylus schreibersii*", "*Pantodactylus parkeri*", "*Cercosaura parkeri*", "*Micrablepharus maximiliani*", "diet"). The studies found reported that *C. parkeri* has a diet based on arthropods, without further detail of the food items (Cacciali & Bauer, 2003; Cabrera et al., 2019). These results are also reported for other Gymnophthalmidae species (Rocha, 1994; Oliveira & Pessanha, 2013; Silva, 2012; Da Silva et al., 2015).

This is the first record of a vertebrate (*M. maximiliani*) as diet of *C. parkeri*, and the second record of a vertebrate as prey of a gymnophthalmid lizard, as Echevarria & Venegas (2013) had previously recorded a cannibalism event in which an adult of *Petracola ventrimaculatus* preyed on a hatchling.

In the present record, two observations suggest accidental predation: the finding of the specimens in a pitfall trap and the fact that *C. parkeri* was dead with its stomach open and its prey partially exposed. Pitfall traps are efficient for sampling herpetofauna (Corn, 1994), but they can select the availability of food items in the environment and result in predator-prey interactions that do not occur under normal environmental conditions. However, the diet does not differ between lizards collected in and out of pitfalls traps (Costa et al., 2008).

This record shows that *C. parkeri* feeds on other lizards and expands information about the species diet. More detailed investigations of the stomach contents of individuals captured in natural conditions can provide insight into the frequency of this predator-prey interaction. Short notes like this are important to understand the natural history of the species and the family Gymnophthalmidae, as well as providing important data for futher studies on the ecology of lizards.

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Figure 1. Predation record of *Micrablepharus maximiliani* (22.48 mm snout-vent length) by *Cercosaura parkeri* (118.56 mm snout-vent length) in Pouso Alegre Lodge, Poconé , Mato Grosso, Brazil. **(A)** Pitfall trap where the event occurred; and **(B-C)** specimens involved.