Snakes are the most frequent vertebrate predators of post metamorphic anurans. About 45% of the reports of predation on Anura are from snakes, followed by birds, mammals, and other anurans (Toledo et al. 2007). Amphibians and snakes share similar nocturnal habits (Bauer, 1990; Maffei et al. 2010; Dorado-Rodrigues et al. 2012) and snake predation may constitute an important selective pressure for defense strategies in Anura (Toledo et al. 2007).

The genus *Thamnodynastes* Wagler, 1830 is composed of 19 species of colubrid snakes distributed in South America (Uetz 2017). These species present several taxonomic problems which makes identifying them and defining their distributions difficult (Franco and Ferreria 2002; Bellini et al. 2013). Even so, *Thamnodynastes chaquensis* Bergna and Alvares, 1993 is distributed in the Chaco and Pantanal ecosystems in Argentina, Paraguay, Uruguay and Brazil (Franco and Ferreira 2002; Bellini et al. 2014; Uetz 2017). *Thamnodynastes chaquensis* is a small snake that shows sexual dimorphism, with females who have less subcaudal and ventral scales, are heavier, and have shorter tails and longer heads as compared to males. Furthermore, this species feeds exclusively on anurans, which makes it the species with the most restricted diet when compared to other similar and co-distributed species, such as *T. hypoconia* and *T. strigatus* (Bellini et al. 2014).

*Elachistocleis matogrosso* Caramaschi 2010 is a small microhylid, which occurs in the southern Brazilian Pantanal (Caramaschi 2010), where it shares its distribution with *T. chaquensis*. This small frog is easily distinguished from similar species by the presence of a stripe that extends from the post-cephalic dermal fold to the vent at the mid-dorsum. *E. matogrosso* was recently described, which is why little is still known about its ecology, natural history traits and interspecific interactions.

Herein I report a predation event by *T. chaquensis* (Colubridae) on *E. matogrosso* (Microhylidae). This event was registered during fieldwork on 13 April 2016, at 22h, in the vicinity of the Base de Estudos do Pantanal of the Universidade Federal de Mato Grosso do Sul, in the Brazilian Pantanal (19°34′31,7″S 57°1′17,5″W). The individual of *E. matogrosso* was observed on a rocky area in a temporary pond not far from the marginal vegetation, where it approached the snake without realizing its presence. Afterwards, the individual of *T. chaquensis* attacked the small frog, grabbing it by its back (Fig. 1). After 18 minutes with the frog in its mouth, the individual of *T. chaquensis* started to swallow its prey.

We found similar predation reports (Dorado-Rodrigues et al. 2012; Dorigo et al. 2014) verifying that species of *Thamnodynastes* use their opisthogliphous dentition to poison the prey before ingestion and that the prey can take 14 to 19 minutes to die. Predation is a selective force for amphibians, which push frogs to develop behaviours and life-history traits, such as defences that can be divided into passive, cryptic colorations, and active, such as chemical compounds (Wells 2007). Even so, defensive behaviours like stiff-legged posture were recorded for the family but not for the species (Mira-Mendes et al. 2016), and there are not recognised substances in skin of Microhylidae related with antipredator function (Mebs et al. 2010).

This is the first report of a species of Microhylidae as prey of *T. chaquensis*, and the second for the *Thamnodynastes* genus (see Maffei et al. 2011). Furthermore, when compared between families,
Microhylidae is not a common prey for snakes regarding the number of species (Toledo et al. 2007), which suggests that even *T. chaquensis* being a predator specialized in anurans, predation of Microhylidae may be occasional and opportunistic.

**Acknowledgments.** I would like to thank Vanda L. Ferreira for help with snake identification, Diego J. Santana for frog identification and suggestions on the manuscript, Hannah Doerrier for English review and Brazilian “Conselho Nacional de Desenvolvimento Científico e Tecnológico” (Cnpq) for scholarship.

**References**


*Figure 1.* A young *Thamnodynastes chaquensis* preys on a small *Elachistocleis matogrosso* in a rocky area close to a temporary pond in the Brazilian Pantanal.


*Accepted by Igor Kaefer*