

NATURAL HISTORY NOTES

HELICOPS MODESTUS (Water Snake): PREY.

The genus *Helicops* currently comprises 15 species of aquatic xenodontine snakes widely distributed in south America, occurring from Colombia to Argentina (Rossman, 1970; Frota, 2005). Published data show that these snakes feed mainly on fishes and tadpoles (the most commonly available prey in the habitats they live), but also prey on frogs and lizards (Martins & Oliveira, 1998; Aguiar & Di-Bernardo, 2004; Ávila et al., 2006). The Water Snake *Helicops modestus* Günther, 1861 inhabits water bodies of the Brazilian Cerrado biome (Rossman, 1970; Nogueira, 2001). It feeds on fishes and amphibians, (Lema et al., 1983; Sawaya et al., 2008) and is considered a habitual scavenger (Sazima & Strüssmann, 1990). Despite this information, we are unaware of any specific accounts of anuran species that are prey of *H. modestus*. Herein we report here an observation of a juvenile *H. modestus* (175 mm SVL) preying on a small Leiuperid frog, *Physalaemus cuvieri* (male; 26.58 mm SVL). The observation took place on 22 September 2008, on a temporary swamp located in a pasture area in Betim municipality, Minas Gerais State, Brazil (44° 07' 12" S, 19° 59' 40" W; elev. 802 m). The snake was found on the shore of the swamp, with the frog in its mouth, ingesting it head first. The presence of the researchers disturbed the snake, which subsequently released its prey (Fig. 1) and hid under the water. The snake and the frog were collected and deposited in collections at the Museu de Zoologia João Moojen, Universidade Federal de Viçosa, in Viçosa, MG, Brazil (MZUFV 1617) and Museu de Ciências Naturais, Pontifícia Universidade Católica de Minas Gerais, Belo Horizonte, MG, Brazil (MCNAM 10947).

Physalaemus cuvieri is widespread in Brazil south of the Amazon, adapting itself well to anthropic habitats and breeding in temporary puddles, streams or swamps, where males call nocturnally (Bokermann, 1962; Eterovick & Sazima, 2004). The species habits contribute to its susceptibility as a potential prey item for *H. modestus*. We thank SETE Soluções e Tecnologia Ambiental Ltda. for financial and the field support, Michael Rudolf Cavalcante Lindemann for the assistance in the field and IBAMA for collection permits (140992-2).



Figure 1. Adult male *Physalaemus cuvieri* from Betim, MG, Brazil, preyed by a juvenile Water Snake, *Helicops modestus*. The deep wound indicated that the frog was first bitten in the abdomen.

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TUPINAMBIS MERIANAE: OPHIOPHAGY. The *Tupinambis* genus is distributed almost entirely throughout south America. They are found east of the Andes ranging from the north of the continent to northern Patagonia; specifically in the Amazonia Basin, along costal waters in the Guianas, Venezuela, Colombia, in addition to northern Brazil and areas in southern Paraguay, Uruguay, and northern Argentina (Presch 1973). *Tupinambis merianae* Dumeril & Bibron, 1839 is a terrestrial lizard found throughout Brazil, mainly in

open areas in the central Cerrado and southeastern forest regions, but they are also found in Argentina and Uruguay (Carvalho & Araújo, 2004; Haddad et al., 2008; Colli, 2009). They are omnivorous and their diet consists of: invertebrates (millipedes, arachnids, insects and mollusks), vertebrates (birds, fishes, amphibians, lizards and small mammals), bird and turtle eggs, fruits, carrion and mushrooms (Presch, 1973; Sazima & Haddad, 1992; Tortato, 2007; Carvalho & Araújo, 2004; Colli, 2009; Toledo et al., 2004 and references within). They can act as potential seed dispersers (Castro & Galetti, 2004) and may have a profound impact on ground nesting birds on islands and possibly in forests fragments (Bovendorp et al., 2008).

The Swamp Racer Snake *Mastigodryas bifossatus* Raddi 1820 is a large neotropical Colubrid that occurs in south America. They feed on frogs, small mammals, lizards, birds and snakes (Leite et al., 2007; Marques & Muriel, 2007). These snakes live mainly in open areas in the Brazilian Cerrado, Pantanal and the grasslands of southern Brazil. They also occur in low abundances in the Amazon and Atlantic forests (Hoogmoed, 1979; Strüssmann & Sazima, 1993; Lema, 2002; Argôlo, 2004; Marques et al., 2004). The adults average ca. 1,100 mm snout vent length (SVL) and there is a lack of sexual dimorphism (Marques & Muriel, 2007).

On 7 December, 2006 around 10:00 to 12:00 an adult *T. meriane* (ca. 400 mm SVL) ate a *M. bifossatus* (ca. 1000 mm SVL) in the grasslands of Pantanal's Nhecolandia Region (19° 14'59" O; 57° 01'45" S), at the Fazenda Nhumirim, Mato Grosso do Sul State (Fig. 1). This type of predation is not common in lizard species. Normally, lizards are eaten by snakes. Furthermore, detailed records of prey-predator inter-specific relationships are limited in the literature for many species (Lima & Colombo, 2008). This observation represents the first documented record of snake predation by a Tegu Lizard species. From now, snakes may be considered a prey category for the lizard *T. merianae* in the Brazilian Pantanal area. We are grateful to C. Strüssmann, V. L. Ferreira and A. B. Outeiral for identifying the snake species, to A. Peres Jr. for information about *Tupinambis* and A. Gainsbury for reviewing the text.