Mussurana bicolor (Serpentes: Dipsadidae: Pseudoboini) preying upon *Helicops leopardinus* (Serpentes: Dipsadidae: Hydropsini)

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Mussurana bicolor occurs in open areas and disturbed habitats in the Pantanal and Chaco regions of south-central South America. Although little information is available regarding its biology, it seems to be terrestrial and nocturnal and to feed on mammals, lizards, snakes, and amphibians (Strüssmann and Sazima, 1993; Couturier and Faivovich, 1996; Alencar *et al.*, 2013; Gaiarsa *et al.*, in press). Here, we describe a predation event of *M. bicolor* on the aquatic dipsadid, *Helicops leopardinus*.

On 17 May 2007 at 20:07 h PRS observed an individual of *Mussurana bicolor* (SVL *ca.* 1000 mm) at the *Base de Estudos do Pantanal* (Universidade Federal do Mato Grosso do Sul; 19°34'37.21"S; 57°01'10.29"W), Corumbá municipality, Mato Grosso do Sul State, in an open area with sparse vegetation feeding on an adult water snake, *Helicops leopardinus*. The observation occurred about 8 m from the nearest water body, a 4050 m – wide pond. Although the exact location where the observation occurred is subject to flooding during the rainy

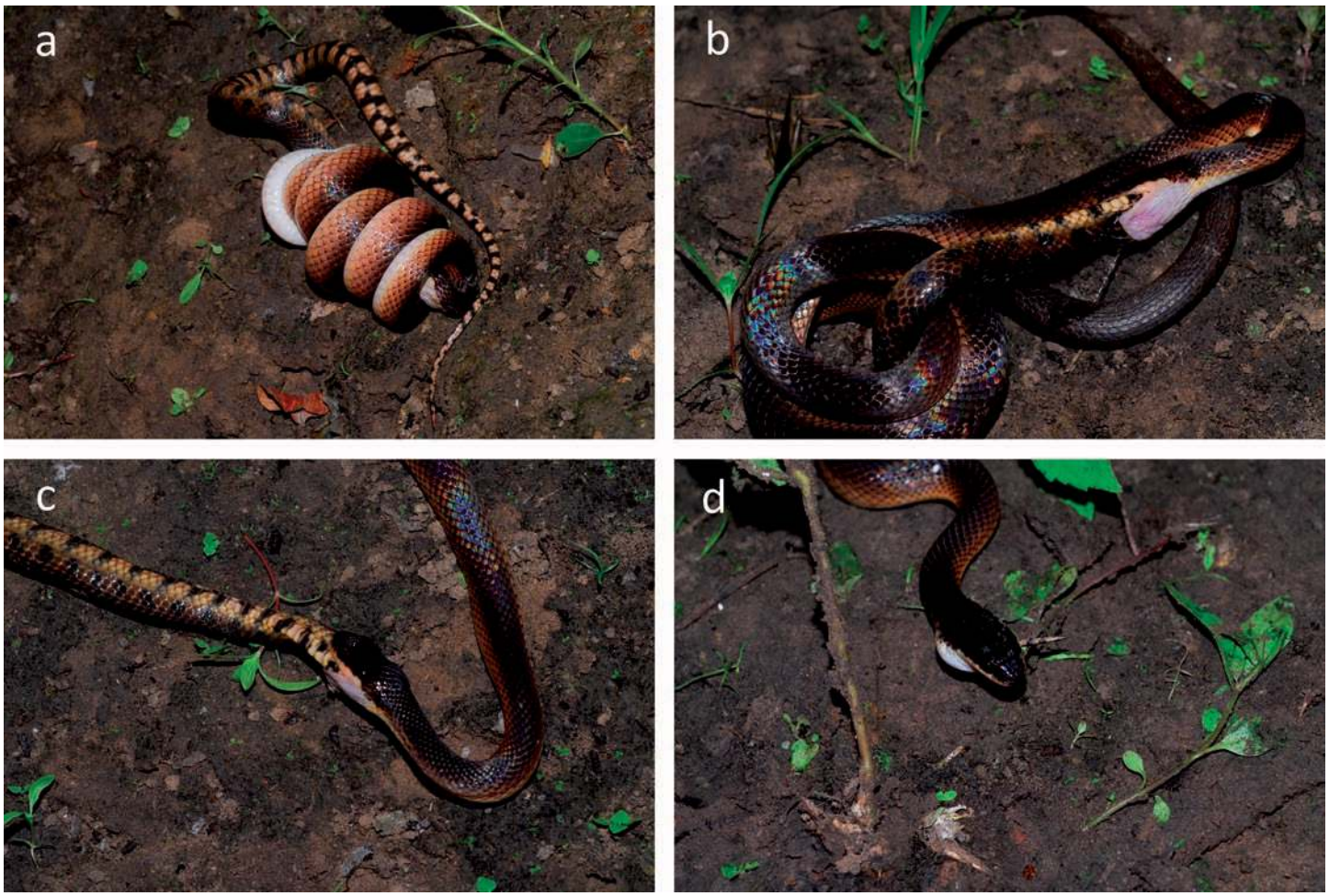

Figure 1: Four stages of the predation event of *Mussurana bicolor* on *Helicops leopardinus* (Photos: Paulo Robson Souza): **(a)** constriction; **(b)** predator loosing coils; **(c)** beginning of swallowing; and **(d)** finishing of swallowing.

season (November to March, when the average monthly rainfall is over 100 mm), at the time of the observation (early dry season) it was dry. When found, the individual of *M. bicolor* was constricting the water snake and grasping it by its head (Figure 1a). At 20:19 h the predator began to uncoil the body, positioned frontally in relation to the prey, and began to swallow it head first (Figure 1b and 1c). Ingestion began around 20:32 h and finished at 20:42 h (Figure 1d). The entire event, from the first observation until the end of swallowing lasted 37 min.

Helicops leopardinus is an aquatic, nocturnal species (Strüssmann and Sazima, 1993; Yanosky *et al.,* 1996; Ávila *et al.,* 2006), frequently found in flooded areas (Strüssmann, 1992; Hoogmoed, 1993). Strüssmann (1992) found this species in shallow areas of water bodies and on the wet ground around them. Based on its ichthyophagous feeding habits, Ávila *et al.* (2006) suggested that it forages at different depths of the water column, including shallow flooded areas and ponds. Although *Mussurana bicolor* was found mainly in dry areas (Strüssmann, 1992; Couturier and Faivovich, 1996), an individual was found in activity (constricting a frog) in the middle of a swamp in the same region of the predation event described above (Gaiarsa *et al.,* in press). Thus, the encounter of a primarily terrestrial predator (*M. bicolor*) with an aquatic prey (*H. leopardinus*) in the Pantanal may be possible in at least two situations: when the former forage in the habitat of the latter or when the latter moves from one water body to another, crossing drier areas, especially when water bodies become isolated during the dry season (see Strüssmann, 1992). Since the present observation was made in the dry season, both possibilities are plausible.

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Bolitoglossa sp., Cruzeiro do Sul, AC (Foto: T. Grant).