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DIPSAS INDICA (Snail-eating Snake): REPRODUCTION. The genus *Dipsas* is a well diversified taxa composed of nocturnal, semi-arboreal and malacophagous species (Greene, 1997) widely distributed in Central and south America (Peters & Orejas-Miranda, 1970). In Brazil eight species occur (SBH, 2008) and published reproductive data are restricted to half of them (Porto & Fernandes, 1996; Martins & Oliveira, 1999; Hartmann et al., 2002; Alves et al., 2005).

Herein, we present unpublished data about oviposition, hatching, clutch size, relative clutch mass (RCM) and size of hatchlings of *Dipsas indica*. This species is distributed in south America

and five subspecies are recognized (Peters & Orejas-Miranda, 1970; Hoge & Romano, 1975).

On 10 November 2006, a gravid female *D. indica* with a snout-vent length (SVL) of 600 mm, tail length (TL) of 170 mm, and mass of 60.8 g was collected in Mogi Mirim (22°25' S, 46°57' W, 632 m), São Paulo State.



Figure 1. Difference in color pattern of hatchling *Dipsas indica*. Upper: Female. Lower: Male.

On 17 November 2006 it was housed in 40 x 80 x 50 cm terraria, with a water dish, moistened soil, leaves and branches. Until oviposition, veronicellid slugs were offered as prey. During this period the snake fed on two slugs with 2.5-3.0 cm. On 27 December 2006 it laid 5 eggs, being 2 weakly adhered and 3 separated. The snake was found under the leaves semi-coiled around the eggs. No behavioural changes of the female were observed during collection of the eggs.

Eggs averaged 29.2 ± 1.9 mm in length (range = 27.3-31.7 mm), 12.7 ± 0.4 mm in width (range = 12.2-13.2 mm) and 3.0 ± 0.1 g in mass (range =

2.8-3.1 g). Clutch mass was 14.9 g and after oviposition the female weighed 36.0 g. Relative clutch mass (RCM; total clutch mass/body mass of mother after oviposition + clutch mass; cf. Seigel & Fitch, [1984]) was 0.29. The RCM calculated according to Shine (1980) (total clutch mass/body mass of mother after oviposition) was 0.41.

Four out of five eggs were incubated in a plastic container with moistened vermiculite, at room temperature averaging 24°C (range = 22-26°C). On 13 April 2007, three eggs hatched after an incubation period of 107 days. Hatchlings averaged 180.3 ± 8.0 mm SVL (range = 172-188 mm), 55.7 ± 4.0 mm TL (range = 51-58 mm) and 2.6 ± 0.2 g (range = 2.4-2.8 g) and were similar to other hatchling *Dipsas* sp. (Hartmann et al., 2002; Alves et al., 2005). Male hatchlings (n = 2) were clearer than female (n = 1) (Fig. 1). The egg not hatched was dissected and contained one dead full term embryo. Hatchlings were placed in terraria (30 x 15 x 20 cm), with soil, leaves, branches, a water dish and fed with snails. Initial growth rate during the first 14 weeks was 2.64 mm by week.

D. indica is a semi-arboreal species (Sazima, 1989; Greene, 1997) but despite this, until oviposition, the female was never seen on the branches. Instead, it was frequently found coiled under the leaves. Conversely, hatchlings were frequently found resting on the branches within the terraria even during the day. Pregnancy may have dissuaded the adult female snake from normal arboreal habits.

Fecundity (clutch size, RCM) was low and this is also a common trait within other *Dipsas* sp. (Zug et al., 1979; Martins & Oliveira, 1999; Hartmann et al., 2002; Alves et al., 2005; Cadle, 2005). Low fecundity may have two different (but non-exclusive) reasons: the small body size of the adult female (larger females tend to produce larger clutches; Shine [1994]), or a reflection of the genus' arboreal habits (Pizzatto et al., 2007). Seemingly, species of *Dipsas* show aseasonal reproduction in lower latitudes (e.g. Zug et al., 1979; Porto & Fernandes, 1996; Alves et al., 2005) and seasonal reproduction in higher latitudes (e.g. Marques, 1998; Hartmann et al., 2002; Marques & Sazima, 2004).

Our observations may strengthen the suggestion

of seasonal (spring-summer) reproduction in *Dipsas* from higher latitudes, however, more data on southern Brazil populations of *D. indica* would be necessary to provide concrete evidence of this definition of reproductive cycle for the species.

ACKNOWLEDGEMENTS

We thank S. R. Travaglia-Cardoso for the photos, V. J. Germano for technical support. Finances were supported by FAPESP (07/51977-3).

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MASTIGODRYAS BODDAERTI (Boddaert's Tropical Racer): PREDATION. Frogs often represent a high quality meal for many animals such as snakes, arthropods, arachnids and centipedes (McCormick & Polis, 1982; Forti et al., 2007; Wells, 2007). However, among vertebrates, snakes are one of the most significant predators of adult amphibians (Toledo et al., 2007).

This paper presents a predation behaviour record of the snake, *Mastigodryas boddaerti* on the frog, *Leptodactylus fuscus* in natural conditions, in Cuiabá municipality, state of Mato Grosso, Brazil. This region has annual precipitation varying from 1,250 to 1,500 mm. Two different seasons (rainy/dry) are recognized, with mean air temperature about 24-26°C Carvalho & Nogueira (1998).

Mastigodryas boddaerti occurs in Colombia, Venezuela, Brazil, Bolivia, Ecuador, Trinidad, French Guiana and Peru (Cunha & Nascimento 1993; Uetz, 2008). It is a terrestrial and diurnal species whose diet is composed mainly of lizards, frogs of the families Leptodactylidae and Hylidae (Vanzolini, 1986; Carvalho & Nogueira, 1998; Bernarde, 2004; Leite et al. 2007), reptile eggs, birds, and small mammals (Bernarde, 2004).

On this occasion the victim was *Leptodactylus fuscus* (Leptodactylidae), which occurs throughout Brazil, Argentina, Bolivia, Paraguay, and the eastern Andes (Frost, 2007). Males of *L. fuscus* are approximately 36 mm and females 39 mm of snout-vent length (SVL). Reproduction is restricted to the rainy season, when males build nests on the mud and actively vocalize to attract females (Martins, 1988).

The predation event was observed on the 29 February 2008, at 14:05 hrs (approximately 36.0°C air temperature) by the first author, who documented the entire event photographically. The *Leptodactylus fuscus* individual invaded the backyard area of a rural residence (approximately 15° 20' S 55° 53', 250 m elevation). The snake appeared, possibly attracted by the prey movement, a feature common to snakes with diurnal habits (Ota, 1986), and approached the victim by slow lateral undulations. The snake stopped 20 cm from the frog and struck the left pelvic region of the victim rapidly, without releasing the frog. In