## Leptophis ahaetulla marginatus: Parrot snake reproduction data

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Leptophis ahaetulla marginatus (Cope, 1862) is a small colubrid (14.0g±2.1) with diurnal and semiarboreal habits. Although this snake is known to eat small lizards, lizard tails, young birds, and bird eggs, it primarily consumes anurans, 90% of which belong to Scinax genera (Albuquerque et al. 2007). L. a. marginatus is found throughout South America, southeastern Bolivia, Uruguay, Paraguay and Brazil, particularly the states of Mato Grosso, Mato Grosso do Sul and São Paulo (Albuquerque 2008, Bernils 2012). L. a. marginatus is neither on the International Union for Conservation of Nature List - IUCN List (IUCN 2014) or the Brazilian Red List (Machado et al. 2008), and is currently classified in the "Least Concern" category on the São Paulo State red list (Bressan et al. 2009).

The present observations were made on 2nd February 2012, in a lowland area in the city of Promissão in São Paulo State, Brazil, where the Marsh Deer Conservation Center is located. In this area, several adult individuals were frequently seen in bushes and trees, and also inside houses and barns. In one property (21°18'21.69"S 49°47'53.32"O), a barn brick wall had been demolished and a clutch of 49 eggs discovered inside a cement brick (39 x 19 x 14 cm) at 60 cm above the ground. The eggs were found adhered to each other on a thin bed of sand and dried leaves, but not adhered to the brick. The nest entrance was not discovered. Only 12 out of 49 eggs were healthy and viable. 37 eggs were moldy and non-viable. A necropsy exam on one egg showed an embryo in its final stage of development. The remaining 11 eggs were incubated in a terrarium with humidified sand and polystyrene foam plate, maintained at 27 - 31°C between 61 and 91 percent humidity. In 15 days, 10 out of 11 neonates hatched successfully. Measurements including total length, tail and head length, and head width were obtained with a tape measure and caliper rule; body weight was measured with Pesola spring scales. One of the 10 hatchlings presented a tail deformity which was curved and smaller; therefore, its measurements were not included in the final data. The biometry of the nine neonates is listed in Table 1.

The neonates were not sexed. The hatched neonates presented a similar colour pattern to that of the adults, but more grey. All hatchlings were released at the location they were collected. The clutch found in this report differs from previous publications with a greater number of eggs. Twelve were probably from a single female since

Table 1. Biometry (TTL-total length in cm; TLL-tail length in cm; HDL-head length in cm; HDW-head width in cm; and BDWbody weight in g) and analysis (MI-minimum; MA-maximum; ME-media; SD-standard deviation; VC-variation coefficient) of nine L. a. marginatus neonates.

Specimen	TTL	TLL	HDL	HDW	BDW
1	32,5	12,0	1,2	0,5	1,5
2	32,0	10,5	1,1	0,5	2,4
3	34,2	12,5	1,1	0,4	2,5
4	31,4	11,9	1,1	0,5	1,2
5	30,3	10,9	1,2	0,5	2,0
6	32,6	12,4	1,2	0,4	2,2
7	32,2	12,2	1,2	0,5	2,6
8	31,5	11,8	1,1	0,4	2,2
9	29,5	10,1	1,2	0,5	2,0
MI	29,5	10,1	1,1	0,4	1,2
MA	34,2	12,5	1,2	0,5	2,6
ME	31,8	11,6	1,2	0,5	2,1
SD	1,4	0,9	0,1	0,1	0,5
VC	4,3	7,5	4,6	10,7	22,3

they were adhered to each other and in the same stage of development. Rand (1969) reported small L. ahaetulla egg clumps of two, three and four eggs, but did not indicate if they were from one or multiple females. In addition, the neonates biometry was smaller compared to our data. More recently Cruz Lizano et al., (2013) reported clutches of 5 eggs and Albuquerque (2008) described two L. a. marginatus females with nine and ten well developed eggs in her oviduct. Cruz Lizano (2013) reported the hatching period in Costa Rica is from May to November after approximately a 89 day incubation. Our data indicate the hatching period of the L. a. marginatus in western São Paulo State region can extend to February and that this species occupies lowlands and anthropized areas. L. a. marginatus females possibly visit their own or a different nest site for egg laying in the same season or throughout the year.

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