

NATURAL HISTORY NOTES

CROTALUS DURISSUS (neotropical rattlesnake):
REPRODUCTION. *Crotalus durissus* is the only rattlesnake species in Brazil (Campbell & Lamar, 2004). Its reproductive cycle is seasonal and parturition occurs from December to March, during the summer (Almeida-Santos & Salomão, 1997; 2002; Barros et al., in press). Herein we present a new record of a litter of *C. durissus* from the Brazilian caatinga region, a semi arid area in northeastern Brazil.

Data about the period of copulation, timing of birth, offspring size and growth of seven newborns maintained in captivity is presented. Biometric data of these individuals are available from their birth to approximately one and a half years old. One female *C. d. cascavella*, collected in the city of Salvador (State of Bahia/Brazil) in 2001 and a conspecific male were placed in the same terrarium in early 2006 at the Butantan Institute. Mating was observed in late June 2006 (autumn) and parturition occurred in December 2006 (summer).

The female (1340 mm in snout-vent length [SVL], 90 mm tail length [TL]) gave birth to nine newborns (one dead and eight alive). One newborn died two months later leaving four males and three females. Neonates were maintained in captivity under permit from IBAMA 480548 (number 21154.003193/84-11). The young were kept individually in transparent boxes with cardboard as substrate, water and room temperature of 27.4°C. During the first six weeks they were fed one newborn mouse per week. After this period young were fed once a week with mice weighing 5 g. Later the snakes were fed only once every two weeks.

Biometric data (body mass, SVL and TL) were recorded every three months from December 2006 to July 2008. Student t-tests were used to detect

differences in mean values of SVL, TL and body mass (BM) between young males and females. The relative clutch mass (RCM = total clutch mass/body mass of the mother + clutch mass; see Seigel & Fitch [1984]) was 0.15.

Other species of viviparous terrestrial snakes present higher values of RCM (Shine, 1992). Births generally occur during the summer for *C. durissus* from northeastern Brazil (Table 1). Body mass and length (SVL) of newborns varied according to clutch size; newborns were larger and heavier when clutch size was smaller (N = 9; this study) than when it was large (N = 17; Barros et al., in press) (Table 1). Male tails were longer than females tails ($t = -2.40$, $p = 0.03$) (Fig. 1). The presence of hemipenes inside male tails may explain these differences (Shine et al., 1999). No significant difference was observed in SVL ($t = 0.22$, $p = 0.82$) and body mass ($t = 0.15$, $p = 0.88$) between males and females that were maintained in captivity. The captive snakes also grew equally until 17 months old (Fig. 1).

Differential growth should be observed after sexual maturity is attained in snakes (Shine, 1994). The individual snakes monitored herein were likely still sexually immature, as sexual maturity is attained at 82 cm (males) and 83 cm (females) in *C. durissus* from northeastern Brazil (Barros et al., in press).

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Parturition (months/seasons)	Litter	SVL (mm)	Body mass (g)	Source
December to February (summer)	16 to 22	340 to 345	16 to 24	Cordeiro et al. (1981)
December to February (summer)	15*	401.7 (± 29.1)	23.85 (± 2.91)	Lira da Silva et al. (1994)
Unknown	17	294.35 (± 6.93)	22.59 (± 3.54)	Barros (2007)
December (summer)	9	375 (± 5.7)	34.4 (± 1.71)	This study

Table 1. Comparative data on the timing of parturition, litter size, snout-vent length and body mass of newborn *Crotalus durissus*. *Median value for 9 litters.

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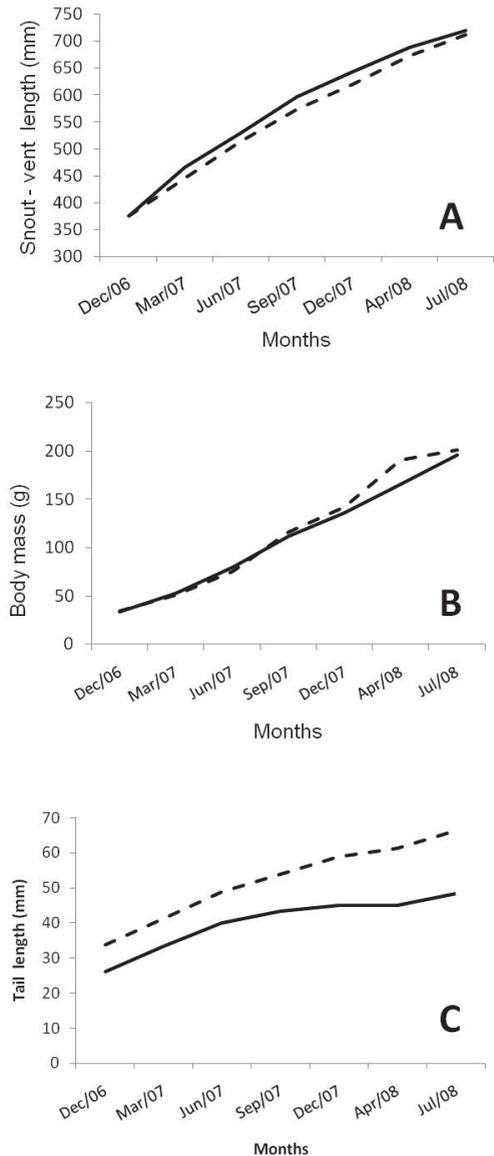


Figure 1. *Crotalus durissus* growth curves; male (dotted line) and female (continuous line). A. Snout-vent length. B. Body mass. C. Tail length.