

BOTHROPS MOOJENI (Brazilian lancehead): MATING. Information about ovarian and testicular cycles is available for several neotropical species of snakes (Marques et al., 2009). However, descriptions of courtship, mating or combative behaviours are scarce and most information currently available comes from extratropical species (Sasa & Curtis, 2006). Herein we describe an observation of wild mating by *Bothrops moojeni* in nature.

B. moojeni is a large terrestrial pitviper that inhabits riparian areas in central and southeastern Brazil, including marshes, the border and interior of gallery forests and mostly areas of Cerrado (Brazilian savannah) (Nogueira et al., 2003; Campbell & Lamar, 2004; Sawaya et al., 2008).

Published literature about reproductive biology of *B. moojeni* reports a lengthy and seasonal reproductive cycle with a vitellogenic period that starts in May (mid-fall) and ovulation around July (early winter). The litter size varies from three to 32 embryos and births are concentrated during the rainy season (summer) from late December to March (Leloup, 1984; Faria & Brites, 2003; Nogueira et al., 2003; Sawaya et al., 2008). Leloup (1975) observed mating in captivity from March to May (late summer to mid-fall) and births from December to January (summer), suggesting a gestation period of about 200 days. Méier & Sandoz-Ogata (1996) observed a captive peak in reproductive activity during January. Almeida-Santos & Salomão (2002) observed UMT (uterine muscular twisting) in females under primary vitellogenesis in February and March and secondary vitellogenesis in June, suggesting sperm storage for *B. moojeni*. Although seasonal timing of mating is an important event to help characterise the reproductive cycle, we did not find any published observations of mating in *B. moojeni* in nature.

On 4 March 2009 (late summer), during a herpetofaunal survey in a forest fragment in the municipality of Patrocínio Paulista (20°38'S, 47°15'W), southeastern Brazil, two adult *B. moojeni* (male 912 mm SVL, 145 mm tail length, mass 410 g; female 977 mm SVL, 139 mm tail length, mass 550 g) were found mating at 09:20 on a cloudy day. The snakes were found mating on leaf-litter, close

to a fallen tree and temperature inside the forest was 28°C. The female was stretched and partially hidden under the fallen tree while the male was exposed on leaf-litter. No other individuals were found nearby the mating couple. Mating continued for 190 minutes before disturbance by capture. When researchers approached snakes for capture, the female reacted vibrating its tail against the ground, struck and tried to escape dragging the male behind her. The male and female ceased mating after the disturbance caused by physical restraining. Both individuals were marked (ventral scale clipping #01, male and #02, female) and released in the capture locality.

Observation of reproductive events in nature is rarely seen in neotropical snakes due to the secretive nature of many species and also because of generally low encounter rates for many species (Sasa & Curtis, 2006). The information herein contributes to the general ecological profile of the species and observations of mating behaviour in neotropical *Bothrops*. A long-term study using radio-telemetry would allow more observations of reproductive events and contribute to building a stronger database of reproductive biology for neotropical species of snakes.

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PALEOSUCHUS TRIGONATUS (smooth-fronted caiman): DIET AND MOVEMENT. The majority of crocodylian species are opportunistic predators. The smooth-fronted caiman *Paleosuchus trigonatus* is known to prey mainly on terrestrial invertebrates (mainly insects) and small vertebrates (Magnusson et al., 1987).

The National Forest of Saracá-Taquera in the north of Pará state, northern Brazil (FLONA), is a protected area that has a rich array of drains and small to large rivers with elevated plateaus (up to 180 metres). Its unique hydric resources include temporary ponds formed during the wet season. On the plateaus, juvenile specimens of the two known species of *Paleosuchus* (*P. trigonatus* and *P. palpebrosus*) exist. On May 19 2010 during a survey of the crocodylians of the area, one female specimen of *P. trigonatus* (64.5 cm TL, 960 g) was captured in a temporary pond in an elevated area named Bacaba plateau. The individual was found at 80 m elevation and 800 m from the nearest river, indicating that it moved through forest to reach the upper plateau. The stomach contents of the individual were obtained by flushing (see Taylor et al., 1978) and revealed gastrolites and remains of two specimens of *Brotheas paraensis* (Arachnidea, Scorpionia, Chactidae) (Fig. 1). To the best of our knowledge this is the first record of consumption of this scorpion species by a caiman. Scorpions of the genus *Brotheas* are terrestrial (Höfer et al., 1996) and *B. paraensis* is usually found among leaf-litter in dense forests in the area (S.A.A. Morato, pers. obs.). A single record of predation of a scorpion is known for the smooth-fronted caiman. *Brotheas* has been recorded in its diet but this species of scorpion is mainly found nearby water. What is interesting is that the record of two individuals of *B. paraensis* as a dietary item may suggest that smooth-fronted caiman prey terrestrially in forest leaf-litter, not solely in riparian areas (cf. Magnusson et al., 1987). Movement across land to preferred feeding resources has also been recorded for *Caiman crocodilis*, previously considered a riparian specialist (Grant et al., 2008).

Smooth-fronted caiman juveniles are found during the wet season on the upper portions of the plateaus and this may suggest that they move larger distances in their territories when younger.