

Clutch size of *Xenodon rabdocephalus* (Wied-Neuwied, 1824) (Squamata: Colubridae) in the southwestern Brazilian Amazon

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ABSTRACT

This report adds information on the reproduction of *Xenodon rabdocephalus* (Wied-Neuwied, 1824) and describes the clutch size in a little-studied region of the Brazilian Amazon. We conducted field observations at the Military Jungle Police Base in the municipality of Porto Velho, state of Rondônia, southwestern Brazilian Amazon (9°5'31.56"S, 64°1'40.08"W). This individual of *X. rabdocephalus* was found to have a clutch of 11 eggs, with a size range of 26–36 mm (mean 29.36 ± 3.23 mm). The specimen analyzed in this report was deposited in the Coleção Herpetológica da Universidade Federal de Rondônia. We indicate the need for studies focused on the variation in the reproductive behaviour of the species in relation to seasonal fluctuation. Finally, reports of this kind help to understand the reproductive habits of *X. rabdocephalus* in nature.

Keywords: false fer-de-lance; Eggs; Reproductive Behaviour; Natural history; Reproduction.

Tamanho da ninhada de *Xenodon rabdocephalus* (Wied-Neuwied, 1824) (Squamata: Colubridae) no sudoeste da Amazônia brasileira

RESUMO

Este relato acrescenta informação sobre a reprodução de *Xenodon rabdocephalus* (Wied-Neuwied, 1824) e descreve o tamanho da ninhada desta espécie numa região pouco estudada da Amazônia brasileira. Realizamos observações de campo na Base de Selva da Polícia Militar no município de Porto Velho, estado de Rondônia, sudoeste da Amazônia brasileira (9°5'31.56"S, 64°1'40.08"W). O indivíduo de *X. rabdocephalus* foi observado com uma ninhada de 11 ovos. O espécime analisado neste trabalho foi depositado na Coleção Herpetológica da Universidade Federal de Rondônia. Indicamos a necessidade de estudos centrados na variação do comportamento reprodutivo da espécie em relação à variação sazonal. Por fim, relatos deste tipo ajudam a compreender os hábitos reprodutivos da *X. rabdocephalus* na natureza.

Palavras-chave: Jararaca Falsa, Ovos, Comportamento Reprodutivo, História natural, Reprodução.

The false fer-de-lance, *Xenodon rabdocephalus* (Wied-Neuwied, 1824), until recently was called *Xenodon rabdocephalus* (NOGUEIRA et al., 2019), has a geographical distribution ranging from the Mexican lowlands, southern Central America to the northwest of Ecuador, west of the Andes, Colombian and Peruvian Amazon, and in Brazilian rainforests (SAVAGE, 2002; COLE et al., 2013; NOGUEIRA et al., 2019; LIMA et al., 2020). It is active during the day, being observed foraging on the ground near water bodies in preserved and secondary forests (BEEBE, 1946; DIXON; SOINI, 1977; FUGLER, 1986; CUNHA; NASCIMENTO, 1993; MARTINS; OLIVEIRA, 1998; SANTOS-COSTA et al., 2015). Its diet consists of anurans together with tadpoles and, rarely, lizards and small birds (BEEBE, 1946; DIXON; SOINI, 1977; CUNHA; NASCIMENTO, 1993; MARTINS; OLIVEIRA, 1998; SANTOS-COSTA et al., 2015). Its defensive behaviors include fake strike, biting, dorsal ventral flattening, triangulation of the head, coiling the tail and escaping (MARTINS; OLIVEIRA, 1998; SANTOS-COSTA et al., 2015). The color pattern makes it look like *Bothrops*, its' mimicry model (SANTOS-COSTA et al., 2015). Its reproduction is oviparous, with a clutch size of 6 to 11 eggs (DIXON; SOINI, 1977; SAVAGE, 2002; SANTOS-COSTA et al., 2015). Information on reproductive aspects and litter size in the southernmost portion of its distribution is lacking. This report adds information on the reproduction of *Xenodon rabdocephalus* and describes the clutch size in a little-

studied region of the Brazilian Amazon.

We conducted field observations at the Military Jungle Police Base in the municipality of Porto Velho, state of Rondônia, southwestern Brazilian Amazon (9°5'31.56"S, 64°1'40.08"W). On May 1, 2021, a transition month between the rainy and dry seasons in the locality, at 09:12 AM, due to ignorance about the importance of snake preservation and local laws, a local resident killed an individual of *Xenodon rabdocephalus* (Figure 1A). This individual was found to have a clutch of 11 eggs (Figure 1B). We dissected and measured the snout vent length, tail length, total length, weight, and size of the eggs. The specimen analyzed in this report was deposited in the Coleção Herpetológica da Universidade Federal de Rondônia, voucher UFRO-HEP 003320.

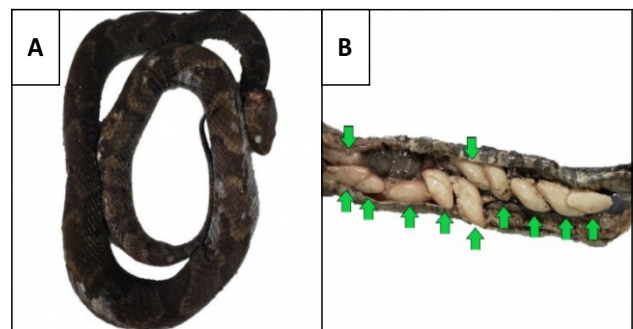


Figure 1. A. *Xenodon rabdocephalus* individual UFRO-HEP 003320. B. *X. rabdocephalus* eggs indicated by green arrows. Photos by Raul Afonso Pommer Barbosa.

The specimen of *X. rabdocephalus* was 834 mm in total length, 728 mm snout vent length, 106 mm tail length and weighing 236 g. Eleven eggs were recorded, with a size range of 26–36 mm (mean 29.36 ± 3.23 mm). Dixon and Soini (1977) recorded two females with 6 and 8 eggs in December and June for the Iquitos region in Peruvian Amazon, comprising the rainy season. Savage (2002) recorded clutches consisting of 1 to 10 eggs in Costa Rica. Santos-Costa et al. (2015) reported females with 7 to 11 eggs in June and October, and one spawning in May, months comprising the dry season period of the Eastern Brazilian Amazon region. This report of one clutch with 11 eggs in May corroborates the results of Santos-Costa et al. (2015), suggesting that *X. rabdocephalus* can breed throughout the year, with the possibility of spawning concentration in the dry season, with similar clutch size for the southwestern Brazilian Amazon region. The pattern found is similar to other species of the genus, such as *X. matogrossensis*, which has a clutch size of 9 eggs and reproduces from October to April, which is the rainy season (CABRAL et al., 2020). We indicate the need for studies focused on the variation in the reproductive behaviour of the species in relation to seasonal fluctuation. Finally, reports of this type help to understand the reproductive habits of *X. rabdocephalus* in nature.

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