



Observations on the Reproductive Biology of the Amazon Treeboa, *Corallus hortulanus* (Squamata: Boidae) in the Manu Biosphere Reserve, Peru

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Corallus hortulanus (Linnaeus, 1758) is an arboreal boid with an extensive distribution throughout Amazonia. It can be found in various forested habitats and disturbed areas, where it also inhabits houses next to forest patches (Calderón et al. 2016). Of the Neotropical genus *Corallus*, this species is the most geographically widespread (Henderson and Pauers 2012; Henderson 2015) and it is frequently encountered in appropriate habitat (Calderón et al. 2016). Despite the widespread abundance of *C. hortulanus*, little is known regarding its natural history and even less about its reproductive ecology in the wild (but see Henderson 2015).

Herein we report a reproductive event in two free-ranging *C. hortulanus* on the night of 25 March 2019 (temperature 25.5 °C, humidity 95.5%). At 1900 h, a pair of *C. hortulanus* (Fig. 1) was observed copulating within the Manu Learning Centre (MLC; 71°23'28"W, 12°47'21"S; WGS 84), a research facility owned and operated by the Crees Foundation. The MLC is located in 643 ha of secondary lowland tropical forest within the cultural zone of the Manu Biosphere Reserve in southeastern Peru. The boids were encountered in a mating position on a rocky pathway that serves the lodges of the MLC. The adult male (SVL = 127 cm; total length = 157 cm; body mass = 290 g) was cream-colored, with dark brown saddles and a yellow venter. The adult female (SVL = 122.5 cm; total length = 149.9 cm; body mass = 318 g) was significantly darker with a dark brown mottled pattern. The female was positioned over the male and their heads were separated by about 20 cm. The tails of the snakes were intertwined, with five coils representing roughly 10% of their body lengths (Fig. 2). At 1915 h, the female loosened and released her coils, thereby separating from the male, at which time the pair was captured. The boas were photographed, measured, and released the following day. Disturbance resulting from our observations could have led to premature separation. Although the total length of

copulation is unknown, due to the boas being on a well-used path between the lodges, we do not believe the mating event exceeded 45 min.

To date, most of the literature describing reproductive ecology of snakes in this genus derives from either captive settings (Blody and Mehaffey 1989; Viana 2017) or preserved collections (Pizzatto and Marques 2007). Although widely distributed and frequently encountered, field observations of reproduction in this species are rare, presumably attributable to the nocturnal and arboreal lifestyle of *C. hortulanus*. The three previous observations of mating in nature were by Bartecki and Heymann (1987) from Peru in July and by da Costa Silva and Henderson (2014) from Brazil in June and September. In these reports, the copulating pairs were encountered during the day coiled high in trees. However, Muñoz et al. (2013) described a pair of strictly arboreal *Corallus annulatus* mating on the ground. Mating on the ground could expose boas to potential predators, such as nocturnal Barn Owls (*Tyto alba*), which occur in the area of this observation and are known to prey on treeboas (da Costa Silva and Henderson 2013). Treeboas in the genus *Corallus* have been observed at night foraging on the ground for food (Martins and Oliveira 1999), which suggests that these snakes could have found each other while searching for prey. Bernarde and Machado (2010) suggested that breeding in *C. hortulanus* might occur within limited periods through the year with local variations throughout its wide distribution. This could explain why mating has been observed during different months.

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Fig. 1. A pair of Amazon Treeboas (*Corallus hortulanus*) copulating on an exposed, rocky pathway with the darker female in the superior position. Photograph by Cristina Arrivillaga.



Fig. 2. Tightly intertwined tails of a mating pair of Amazon Treeboas (*Corallus hortulanus*). Photograph by Cristina Arrivillaga.

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