



A Clutch of the False Tree Coral, *Rhinobothryum bovallii* Anderson 1916 (Squamata: Colubridae), in the Colombian Caribbean

Anibal J. Barreto-Martínez¹ and Julián A. Rojas-Morales²

¹ Manu Adventures-Manu National Park, Calle Plateros 356, Cusco, Perú (anibalofidios@gmail.com)

² Facultad de Ciencias Básicas, Corporación Universitaria Santa Rosa de Cabal (UNISARC), Campus Universitario "El Jazmín" Km 4 Vía Santa Rosa de Cabal – Chinchiná, Caldas, Colombia (julian.herpetologia@gmail.com)

Oviparous snakes lay eggs under logs and rocks, in the nests of ants, termites, and alligators, or in underground chambers excavated by other animals (e.g., Velásquez-Múnera et al. 2008; Baer et al. 2009; Nagy et al. 2017). However, such basic aspects of reproductive biology are unknown for many of the 886 Neotropical species of snakes (Guedes et al. 2017).

The False Tree Coral (*Rhinobothryum bovallii*) has a disjunct distribution across the lowland humid and pre-montane forests from Honduras to Ecuador (Savage 2002; Solórzano 2004; Rojas-Morales 2012; Natera-Numaw et al. 2015; Pazmiño-Otamendi 2017). Nests of this oviparous snake have been described only in captivity (Solórzano 2004; Hammack and Brinker 2008). Ecomorphologically, *R. bovallii* is an arboreal species (following the definition of Harrington et al. 2018) because it has an elongated and compressed body; it also is nocturnal, oviparous, and feeds on reptiles. As many as six eggs laid in January, February, and June take more than 120 days to hatch (Solórzano 2004; Hammack and Brinker 2008). We herein present, to the best of our knowledge, the first record of a nest in the wild in the South American Caribbean.

On 17 July 2012, we found a nest with three exposed eggs near Miraflores Village (09°55'27.7926"N, 75°05'37.3344"W; elev. 167 m asl), Municipality of San Juan de Nepomuceno, Department of Bolívar, Colombia (Fig. 1). The eggs were 4 m from the edge of a small stream inside a tropical dry forest fragment (*sensu* Holdridge 1967). One of the eggs had already hatched. One of the remaining eggs (56 x 22 mm) was collected and placed in a plastic box with vermiculite substrate, humidity around 50%, and a temperature of 30 °C. Ten days later (27 July 2012), a hatchling with a prominent yolk and coloration like that of adults (Fig. 2) emerged from the egg. It measured 200 mm snout-vent length, 37 mm tail length, and weighed 18 g. We released the hatchling at the original site of collection.

This record, in addition to other recent observations (see Table A1 in Martínez-Fonseca et al. 2019), confirms the presence of *R. bovallii* in the dry forests of the Colombian Caribbean, indicating that it is not restricted to lowland humid and pre-montane forests. Also, this record, the first for the Department of Bolívar, fills a gap between the northeastern Colombian locality (Arimaca, Santa Marta,



Fig. 1. Habitat of the False Tree Coral (*Rhinobothryum bovallii*) in the Municipality of San Juan Nepomuceno, Department of Bolívar, Colombia. Note the extended deforestation in the area. Photograph by Anibal Barreto-Martínez.



Fig. 2. Hatching sequence of a newborn False Tree Coral (*Rhinobothryum bovallii*) in captivity. Photographs by Aníbal Barreto-Martínez.

Department of Magdalena; <https://www.inaturalist.org/observations/16216599>) and the nearest record to the south in Tierralta, Department of Córdoba (Rojas-Morales 2012).

The compressed bodies and elongated tails of arboreal snakes limit females to a smaller numbers of eggs compared to typical terrestrial and aquatic species (Vitt and Vangilder 1983; Lillywhite and Henderson 1993). In principle, this could increase the vulnerability of arboreal species to anthropogenic changes in habitats. Although on the IUCN Red List as a species of Least Concern, Arredondo et al. (2017) listed a series of threats to *R. bovallii*, all involving deforestation. While not considered major threats at present, increased research efforts to better understand fundamental aspects of the life history of the species are necessary for accurately assessing the future effects of these threats.

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