

FIRST REPORT OF PREDATION OF *IMANTODES CENCHOA* (COLUBRIDAE) ON *BASILISCUS GALERITUS* (CORYTOPHANIDAE) IN A TROPICAL HUMID FOREST IN COLOMBIA

PRIMER REPORTE DE DEPREDACIÓN DE UN *BASILISCUS GALERITUS* (CORYTOPHANIDAE) POR UNA *IMANTODES CENCHOA* (COLUBRIDAE) EN UN BOSQUE HÚMEDO TROPICAL EN COLOMBIA

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Resumen.– Reportamos el primer evento de depredación del Basilisco de cabeza roja (*Basiliscus galeritus*) por la serpiente bejuquilla (*Imantodes cenchoa*) en un bosque húmedo tropical en Colombia. Este nuevo registro contribuye a una mejor comprensión de la historia natural y la ecología trófica de dos especies de reptiles en su interacción depredador-presa.

Palabras clave.– Basilisco, depredador, historia natural, presa, reptiles.

Abstract.– We report the first predation event of the red-headed Basilisk (*Basiliscus galeritus*) by the Blunt-headed treesnake (*Imantodes cenchoa*) in a tropical rainforest in Colombia. This new record contributes to a better understanding of the natural history and trophic ecology of two species of reptiles in their predator-prey interaction.

Key words.– Basilisk, predator, prey, reptiles, natural history.

The genus *Imantodes* (Duméril, 1853), commonly known as Blunt-headed treesnake, has a broad Neotropical distribution from Mexico through Central America to Argentina, inhabiting diverse environments from tropical forests to savannas (Myers, 1982; Savage, 2002). Currently the genus is comprised of eight arboreal species: *I. chocoensis* Torres-Carvajal et al., 2012, *I. gemmistratus* Cope, 1861, *I. guane* Missassi & Prudente, 2015, *I. inornatus* Boulenger, 1896, *I. lentiferus* Cope, 1894, *I. phantasma* Myers, 1982, *I. tenuissimus* Cope, 1867 and *I. cenchoa* Linnaeus, 1758, but research suggests *I. inornatus* belongs to a different clade (Mulcahy, 2007; Daza et al., 2009; Torres-Carvajal et al., 2012). *Imantodes cenchoa* Linnaeus, 1758 is one of the most common species of the genus presenting a wide distribution from Mexico to Argentina (Myers, 1982). In Colombia, this species has a wide distribution ranging from the Pacific lowlands, present in the Magdalena and Cauca valleys, Amazonia region, to the

high mountains passing through the three mountain ranges (Cordillera Occidental, Central and Oriental) at elevations from sea level to above 2000 m a.s.l. (Castro-Herrera & Vargas-Salinas, 2008; Rojas-Morales et al., 2014).

Imantodes cenchoa lives in a wide variety of natural and transformed places (human settlements, crops). Its habits are mainly nocturnal and arboreal, it is a species that actively forages among the branches of trees and shrubs (Henderson & Nickerson, 1976; Savage, 2002; Cisneros-Heredia, 2006). Its diet is based on small and medium-sized prey, with *Anolis* lizards as its main preys (Henderson & Nickerson, 1976; Zug et al., 1979; Martins & Oliveira, 1998; Savage, 2002; Sousa et al., 2014). However other lizards, such as *Gonatodes* (Martins & Oliveira, 1998; Sousa et al., 2014), and frogs (Zug et al., 1979; Martins and Oliveira, 1998; Rojas-Morales et al., 2021) have been reported

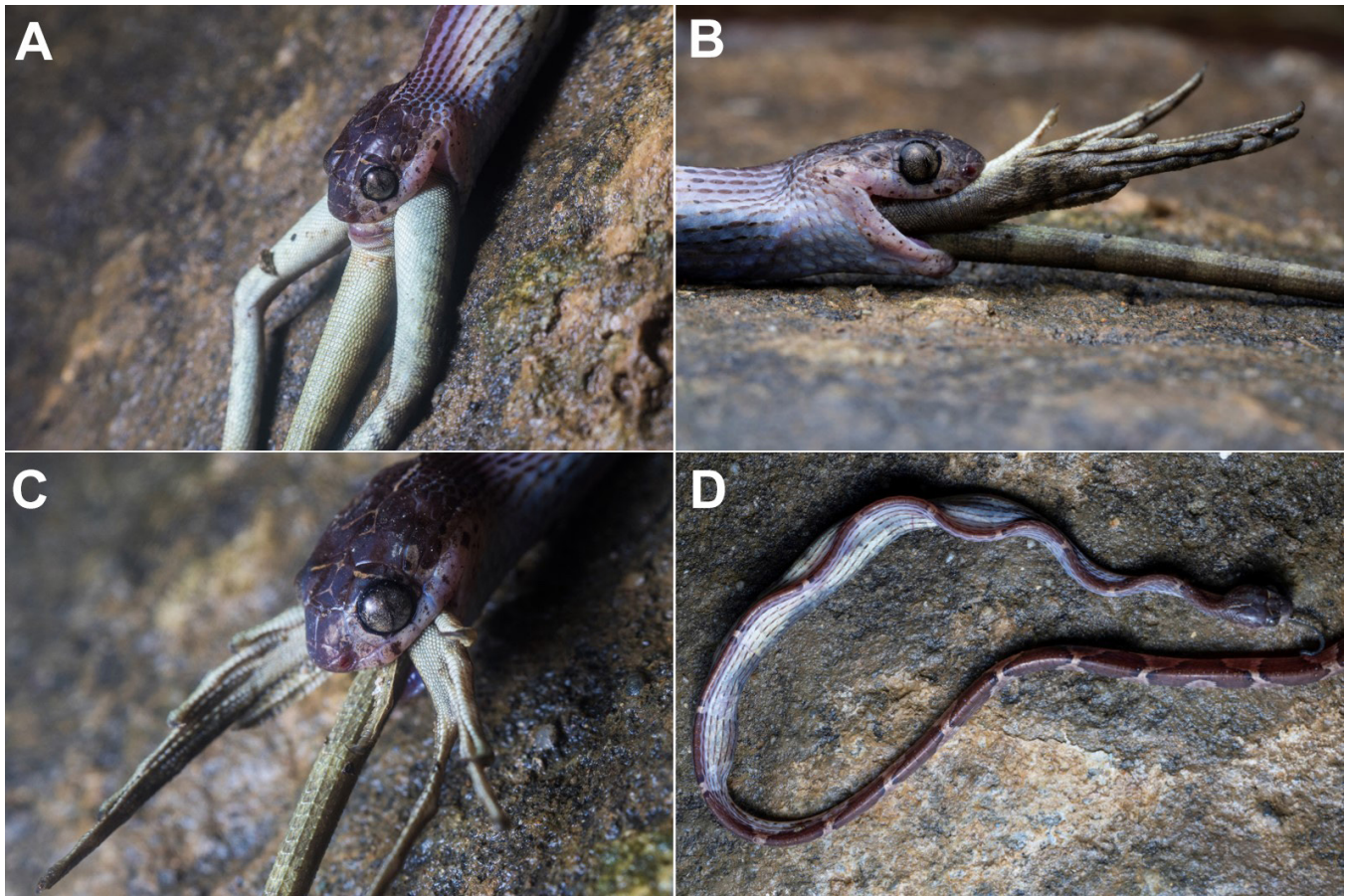


Figura 1. Secuencia un evento en que *Imantodes cenchoa* depreda a un juvenil de *Basiliscus galeritus* en la Reserva Forestal San Cipriano, Colombia. A. ingiriendo la presa por la cabeza, B.C. Vista lateral y frontal del cuerpo de la presa ya casi ingerida, D. *I. cenchoa* termina de ingerir a su presa.

Figure 1. Sequence of the predation event of *Imantodes cenchoa* preying on a juvenile *Basiliscus galeritus* at the San Cipriano Forest Reserve, Colombia. A. Swallowing the prey by the head, B.C. Lateral and frontal view of prey's body already almost completely swallowed, D. *I. cenchoa* ends up swallowing its prey.

in its diet. Although Landy et al. (1966) recorded 3 reptile eggs, “probably *Anolis*”, in the stomach of an *Imantodes cenchoa*, Sousa et al. (2014) suggests it was because that snake ate a gravid female of *Anolis* that was digested faster than its eggs. Here, we report the first predation case of a *Basiliscus galeritus* by an *Imantodes cenchoa*.

On 9 May 2022 at 00:04 h, we found an adult of *Imantodes cenchoa* preying on a juvenile of *Basiliscus galeritus* (Snout-vent length [SVL] = ~150 mm) (Fig. 1) on a water drainage tube at the San Cipriano Forest Reserve, Buenaventura, Valle del Cauca Department, Colombia (3.83177° N, 76.89038° W, 87 m a.s.l.). Although in the region of the Colombian Pacific two species of *Basiliscus* (*B. galeritus* and *B. basiliscus*) have been recorded (Vargas & Bolaños, 1999; Castro-Herrera & Vargas-Salinas, 2008; Cardona-Botero et al., 2013), in the San Cipriano Forest Reserve only *B. galeritus* has been recorded. Because of this, we assumed

with a high confidence that the lizard preyed is *B. galeritus*. When the predation event was found, the basilisk had already been killed and ingested by the head up to the middle of its body (Fig. 1A, B). This event was photographed until the snake ingested the entire basilisk, (Fig. 1C, D) taking about 20 minutes. After that, the snake slowly moved away from the sighting site. None of the species were collected.

Interactions between reptiles in the predator-prey context are common and have been recorded many times in nature (Lewis & Grant, 2010; Vitt & Caldwell, 2013; Gomez-Hoyos et al., 2015; Sousa et al., 2020; Oliveira-Souza et al., 2021). Probably snakes are one of the main lizard predators, using a variety of strategies to hunt and swallow their prey (Moon et al., 2019; Grundler et al., 2021). For instance, it has been suggested that attacking and swallowing the prey by the head has been a strategy to reduce energy expenditure and avoiding any damage caused by the

movement of the limbs (Greene et al., 1976; Moon et al., 2019). Like in other studies, our observations suggest that *I. cenchoa* is a snake that forages at night with slow movements, attacking and swallows its preys by the head (Savage, 2002; Rojas-Morales et al., 2021).

Prey recorded for *I. cenchoa* have been medium and small-sized prey (20-55 mm SVL for *Anolis* and *Gonatodes* lizards). However, Myers (1982) reports a female of *I. cenchoa* (1,480 mm total length) contained an adult *Anolis frenatus* (163 mm SVL) in its stomach. Our observation of the first case of a predation event by a snake of the genus *Imantodes* on a lizard of the genus *Basiliscus* confirms once again that despite its physical appearance with a compressed body and neck, *Imantodes cenchoa* has the ability to gradually expand its neck to ingest large preys, as Myers (1982) suggested. This new record contributes to a better understanding of the natural history and trophic ecology of two squamate reptile species in their predator-prey interaction.

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