



Predation by a Black-banded Cat-eyed Snake, *Leptodeira nigrofasciata* Günther 1868 (Squamata: Dipsadidae) on a Yellow-bellied Gecko, *Phyllodactylus tuberculosus* Wiegmann 1834 (Squamata: Phyllodactylidae) in Northwestern Costa Rica

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The Black-banded Cat-eyed Snake (*Leptodeira nigrofasciata*) is distributed along the Pacific versant from Mexico to Costa Rica (Leenders 2019). This snake is the most distinctive species of the genus in Costa Rica, easily recognized by its characteristic pattern of dark and light bands without dots or spots (Barrio-Amorós 2019). This nocturnally active, mostly terrestrial species (Leenders 2019) is rare and most individuals are encountered while moving along paved roads (Savage 2002). Little is known about this species, but it is known to

feed on leptodactylid frogs (Solórzano 2004), skinks, anoles (Solórzano 2004), and gymnophthalmids (Duellman 1958; Leenders 2019).

The Yellow-bellied Gecko (*Phyllodactylus tuberculosus*) ranges from Mexico to Costa Rica (Leenders 2019), where it inhabits dry forests in which it mainly occurs in association with rocky outcrops, cave and tunnel entrances, bridges, rock fences, and buildings (Lee 1996). *Phyllodactylus tuberculosus* is strictly nocturnal and insectivorous (Savage 2002).



Fig. 1. A Black-banded Cat-eyed Snake (*Leptodeira nigrofasciata*) ingesting a Yellow-bellied Gecko (*Phyllodactylus tuberculosus*) in Santa Rosa National Park, Guanacaste, Costa Rica. Photographs by Jorge Alpízar-Rodríguez.

At 2156 h on 22 July 2019, we observed an adult *Leptodeira nigrofasciata* feeding on an adult *Phyllodactylus tuberculatus* (Fig. 1) in the camping area of the Santa Rosa National Park in northwestern Costa Rica (10°50'13"N, 85°37'08"W; WGS 84; elev. 297 m asl). Although July falls in the rainy season in this area, conditions at the time of the observation were dry, calm, and quite dark (waning quarter of moon on 24 July, 76% illumination on 22 July, moonrise at 0003 h).

Leptodeira nigrofasciata is a rear-fanged snake that kills its prey with a mild venom (Leenders 2019). During the predation event, the snake initially captured the gecko in a tree about 1 m above the ground and subsequently fell to the ground with its prey. The snake constricted the gecko with three complete loops around its body plus incomplete loops at the anterior posterior ends of the body (but not the tail). The snake then took the gecko by the head and began to ingest it. Ingestion lasted 31 minutes.

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