

Reptilia: Squamata (Snakes)

***Bothriechis schlegelii*. Predation and Color Pattern.** The pitviper *Bothriechis schlegelii* occurs from southern Mexico to south-central Colombia, on the Atlantic versant, and on the Pacific versant in western Costa Rica and Panama southward to western Ecuador and northern Peru (Campbell and Lamar, 2004; McCranie, 2011; C. Barrio-Amorós, unpublished). Its diet is known to consist of frogs, lizards, birds, and mammals, of which the latter includes rodents, bats, and a mouse opossum (Savage, 2002; Campbell and Lamar, 2004; Solórzano, 2004; Sorrell, 2009).

Although several authors have reported bats in the diet of *B. schlegelii*, I am not aware of any published photographs of such an occurrence in nature. On 30 January 2015, at 0830 h, at Parque Nacional Volcán Tenorio (Río Celeste), Quirón, Costa Rica, a park ranger found a *B. schlegelii* eating an undetermined species of bat, taken by the head and apparently trying to swallow it while perched on a branch about 2 m from the ground. The ranger showed the encounter to a tourist (Willemijn van den Boom, from La Haye, Netherlands), who photographed the event (Fig. 1). About three hours later Ms. van den Boom returned to the scene and found the snake and bat basically in the same position, and wondered if the snake was having trouble swallowing its prey. She left the scene in order not to disturb the snake, so it is unknown if the snake finished its meal.



Fig. 1. An adult *Bothriechis schlegelii* from Parque Nacional Volcán Tenorio (Río Celeste), Provincia de Alajuela, Costa Rica, attempts to swallow an unidentified species of bat. Note the unusual dorsal color pattern of pronounced paravertebral stripes.

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The color pattern of the *B. schlegelii* in Fig. 1 is unusual, especially for an individual from Costa Rica. Savage (2002: 725) reported the color pattern for *B. schlegelii* from Costa Rica as follows: “Dorsal ground color bright yellow, pink, green, olive green, silver, to dark gray green or charcoal; yellow morph almost uniform or with sprinkling of black, green, and/or red dots; others usually with black outlined light (red, orange, yellow, silver, pale green) spots, blotches or crossbands; rarely with a middorsal dark stripe...” The color pattern of another Costa Rican *B. schlegelii* found at Parque Nacional Manuel Antonio, Quepos, Provincia de Puntarenas shows some similarities, but the paravertebral stripes are red and more pronounced (Fig. 2). Striped dorsal patterns in certain snakes can be a genetic trait (for an overview, see Bechtel, 1995) or a birth defect caused by exposure of the pregnant female to sub-optimal temperatures (Ross and Marzec, 1990). Future herpetocultural work might shed some light on the cause(s) behind the paravertebral striping in *B. schlegelii* from Costa Rica.



Fig. 2. An adult female *Bothriechis schlegelii* from Parque Nacional Manuel Antonio, Quepos, Provincia de Puntarenas, showing pronounced paravertebral striping. 📷 © Alejandro Solórzano

Acknowledgments.—I thank Willeminj van den Boom and Alejandro Solórzano for kindly allowing me to use the photographs in this note, and to Louis Porras for commenting and improving an earlier version of this note.

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***Conophis lineatus*. Arboreal Behavior.** Commonly known as the Guardacamino (= Road Guarder), this relatively abundant snake inhabits low and moderate elevations on the Atlantic versant from Veracruz and Oaxaca, Mexico, to north-central Nicaragua, and on the Pacific versant from Chiapas, Mexico, to northwestern Costa Rica, including the Meseta Central (Campbell, 1998; Savage, 2002; McCranie, 2011); based on personal communication, Scott (1983) also reported this species as occurring in secondary growth in Parque Nacional Corcovado in southwestern Costa Rica.

Conophis lineatus is a well known diurnal but sometimes crepuscular species that has been found in open pasture or crawling in the open, below second growth vegetation, hiding beneath vines on the sandy bank of a riverbed, on the forest floor, under logs or planks, and concealed in the root system of a small tree (Scott, 1983; McCranie, 2011). Several authors have reported the diet of this snake as consisting primarily of lizards, mostly the terrestrial *Aspidoscelis* and *Holcosus*, although one individual was photographed preying on a young *Ctenosaura similis* on a sandy beach (Hernández-Gallegos et al., 2008). In addition, this species is known to feed on frogs (unspecified), toads (*Incilus luetkenii*), snakes (in captivity), the eggs of ground nesting birds, and small rodents (Ditmars, 1931; Mittleman, 1944; Wellman, 1963; Scott, 1983; Mays, 2010).

Based on a captive individual of *C. lineatus*, Henderson and Binder (1981) reported that the snake excavated the substrate from underneath a rock in a terrarium, and clearly made a retreat for itself. Scott (1983) noted that the cone-shaped head in this species barely is differentiated from the body, and Savage (2002) indicated that the decurved and concave rostral suggests that *C. lineatus* burrows into the substrate, as this species frequently escapes capture by entering the burrows of other animals. Thus, based on morphological head characteristics, several field and captive behavioral observations, and the reported diet, this species purportedly leads a highly terrestrial existence.

On 23 February 2015, at ca. 1100 h, one of us (BMA) observed and photographed a *C. lineatus* coiled in a Mandarin Orange Tree (*Citrus reticulata*) about 4 m from the ground (Fig. 1) at Barrio Las Mesas, Brasil de Santa Ana, Provincia de San José, Costa Rica (9°56.331'N, 84°13.831'W; WGS 84), elev. ca. 900 m. The snake remained still for several minutes, then quickly moved to another part of the tree but did not descend to the ground. This report is the first to demonstrate arboreal behavior in *C. lineatus*. We suggest that in highly modified habitats, such as agricultural areas with sufficient foliage, individuals of *C. lineatus* might be drawn to climb trees in search of prey or to seek shelter.