

DEFENSIVE BEHAVIOR IN *LEPTODEIRA ANNULATA ASHMEADII* (HALLOWELL, 1845)

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Among all vertebrates, ophidians are very likely the animals that exhibit the more varied defensive and threatening postures when confronting their enemies (Lancini 1986). In general, snakes prefer to escape from threats, by means of their fast and secretive movements. Nonetheless, many snake species exhibit defensive or elusive behaviors such as cryptic and aposomatic coloration, and mimetism (La Marca and Soriano 2004, Lancini 1986, Lotzkat 2007). Some colubrid snakes adopt a defensive posture by inflating the anterior part of their bodies or opening their mouths in a threatening posture (La Marca and Soriano 2004, Lancini 1986, Lotzkat 2007, Natera-Mumaw *et al.* 2008). Another anti-predator behavior is death feigning (immobilization reflex)(Lancini (1986) to what some snake species recur when disturbed. The objective of this note is to report, for the first time to the best of my knowledge, the death feigning behavior of a *Leptodeira annulata ashmeadii* (Hallowell, 1845) from the Aroa Valley, in Yaracuy State, Venezuela, where the species has been previously reported (Camargo Siliet 2003). Subspecies identity was confirmed by comparing color digital pictures with the subspecies keys provided by Lancini (1986) and Kornacker (1999). The presence of two parallel dark bands was a diagnostic character. A posterior revision of the pictures revealed the presence of a third post-ocular scale (Fig. 1), being different, in this regard, to the condition reported by Lancini (1986). It is unknown whether this is an atypical condition, or a character usually present in this Venezuelan population.

Leptodeira annulata ashmeadii, locally known as "falsa mapanare" (false fer-de-lance) is one of the six subspecies (Peters and Orejas-Miranda 1970) of *Leptodeira annulata*. It is endemic from northern South America (Northern Colombia, Venezuela, and Margarita, Trinidad and Tobago islands). This is an opistoglyphous snake (La Marca and Soriano 2004, Navarrete *et al.* 2006) with nocturnal activity, and terrestrial and arboreal habits. Feeds mainly on small frogs and lizards that kill by injection of a venom with proteolytic, hemotoxic and neurotoxic properties (Lemoine *et al.* 2004). Frequently, they are mistaken by snakes in the genus *Bothrops* (La Marca and Soriano 2004, Lotzkat 2007), perhaps due to some similarity in color pattern, the behavior of raising the head and the anterior part of the body, the flattening of the head that enhances the squamose (temporal) bones and give the head a more triangular shape, the vertical elliptic pupil, and the dark band behind each eye. In case the defensive behavior of death feigning does not work, specimens of *Leptodeira annulata ashmeadii* may expel bad odor substances by the cloacal opening, to dissuade a potential predator or casual handler (pers. obs.).

During the course of field work in the morning of 15 February 2009 in the Venezuelan locality of Aroa, SW the town of San Felipe, at 10°27.304'N y 68°54.169'W and 200 m elevation, I observed and photographed a juvenile specimen of *Leptodeira annulata ashmeadii* (total length: 300 mm; Fig 1) found inactive at 08:50 h. about 30 cm above ground, within a somewhat detached tree-bark. When I suddenly detached the tree-bark on which the snake apparently rested, the specimen fell to the ground and remained motionless, with the ventral part facing upwards. The animal feigned death, resting in the supine position for about three minutes. During all this time, the snake was curling and coiling the body, while keeping a fixed attention to the author. I have seen a similar behavior in specimens of this subspecies in past field trips, with the difference that this time this particular specimen reacted in a different manner to my approaching, contracting the abdomen each time I moved. The feigning simulation ended when I finally moved the snake, time when the snake took the opportunity to escape.

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FIG. 1. Specimen of *Leptodeira annulata ashmeadii* from Aroa valley, Venezuela.

Ejemplar de *Leptodeira annulata ashmeadii* de valle de Aroa, Venezuela.

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