

DEFENSIVE BEHAVIOR IN *PHILODRYAS VIRIDISSIMA* (LINNAEUS, 1758)MARCO NATERA-MUMAW¹, JUAN PABLO DIASPARRA², JORGE NOVOA³ AND DAVID JIMÉNEZ⁴¹ Museo de Vertebrados, Centro de Estudios del Llano (CELLUNERG), Universidad Rómulo Gallegos, Apartado 205, San Juan de los Morros 2301, Estado Guárico, Venezuela. E-mail: mnateram@yahoo.com² Investigador Asociado, Bioreptilia, Centro Integral de Educación, Investigación y Conservación, Caracas, Estado Miranda, Venezuela. E-mail: jpdiasparra@hotmail.com³ Grupo Guardaparques Universitarios, Serpentario Sebastián de los Reyes, Barquisimeto Estado Lara, Venezuela. E-mail: janm_power@hotmail.com⁴ Zoolocriadero Beverly's Maracay, Estado Aragua, Venezuela. E-mail: molurus2000@hotmail.com

The diversity exhibited by snakes could be appreciated not only in its species-richness, standing at about three thousand (Uetz and Hallerman 2007), but also in a vast array of macro- and micro-habitats, diet types, reproduction, and defense strategies exhibited (Greene 1988, Cadle and Greene 1992). The later are particularly varied, given that a single species, or even a single individual, may show different anti-predator behaviors, according to certain contexts (Greene 1988, Marques *et al.* 2001). In this note we report a casual behavior observation on the snake *Philodryas viridissima* (Linnaeus, 1758).

Philodryas viridissima is an arboreal snake that exhibits a complex defensive behavior, consisting in wide-opening of the mouth, in combination with adopting an "S"-shape posture of the anterior part of the animal, while laterally depressing the body, actions that are simultaneously exhibited while the specimen is on the branches (Marques 1999). During a trip in December 2007 to the locality of El Paují, W Santa Elena de Uairén (4°35'52.76"N, 61°17'26.84"W), 986 m elevation, in Bolívar state, Venezuela, we observed and photographed an adult male *P. viridissima* (total length: 1030 mm, snout-to-vent length: 760 mm) while crossing a non-paved road at 15:00 hours. The specimen kept raised the anterior part of the body, almost vertically above the ground, while moving with the head maintained at a 45° angle in relation to the horizontal level (Fig. 1). The snake adopted an undulated posture, typical of some colubrids like *Chironius carinatus* (Linnaeus, 1758), *Mastigodryas boddaerti* (Sentzen, 1796), and *Spilotes pullatus* (Linnaeus, 1758) when being on the ground (Murphy 1997, pers. obs.). Later, when being approached by the photographer, the specimen opened its mouth in a threatening display (Fig. 2). However, contrary to the behavior reported by Marques (1999), this specimen did not exhibit lateral compression of the body; the later strategy most probably employed when the snake is on vegetation. An specimen of *P. viridissima* depicted by Lancini (1979, Fig. 96) shows, likewise, the anterior portion of the body raised, suggesting that this strategy may be regularly employed to have a wider visual field while being on the ground. While being on the trees, the undulate body posture, in association with the cryptic coloration, may be of utility to disguise the body coloration with that of the substrate.

It is worth noting that, out of 15 individuals of *P. olfersii* coming from the central-northern region of Venezuela (Natera and Manzanilla 2000), none exhibited the strategies described for *P. viridissima*; the majority of those specimens tried to bite when being manipulated, or tried to escape if given the opportunity. It is probably that the complexity of the defensive behavior observed in *P. viridissima* is associated with its marked adaptation to arboreal habits, as seem to be evidenced by its heavily angulated ventral scales.



FIG. 1. Adult male of *Philodryas viridissima* while crossing an unpaved road in southeastern Venezuela. See the undulated body, raised in its anterior portion. Insert at upper left corner: same snake in a threatening position. Photos by J.P. Diasparra.

Macho adulto de *Philodryas viridissima* mientras cruza una carretera en el sureste de Venezuela. Note el cuerpo ondulado y levantado en su porción anterior. Cuadro inserto en esquina superior izquierda: el mismo ejemplar en actitud amenazadora. Fotografías de J.P. Diasparra.

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