

STEFANIA WOODLEYI (Woodley's Treefrog). **DEFENSIVE BEHAVIOR.** Antipredator strategy and defensive behavior is widespread among anurans, the most common being crypsis, mimicry, thanatosis (death feigning), toxicity, Unken reflex, and other defensive postures (Duellman and Trueb 1994. *Biology of Amphibians*, The Johns Hopkins University Press, Baltimore and London, 670 pp.; Zug et al. 2001. *Herpetology – An Introductory Biology of Amphibians and Reptiles*, 2nd Ed., Academic Press, San Diego, California, 630 pp.). Aggressive response to a potential predator, unrelated to parental care, is less typical. This behavior includes gaping, jumping towards the potential predator with mouth wide open, sometimes with the emission of a distress call, and occasionally biting (Duellman and Trueb 1994, *op. cit.*; Fabrezi and Emerson 2003. *J. Zool., Lond.* 260:41–51; Myers 1966. *Herpetologica* 22:68–71; Veloso 1977. *Herpetologica* 33:434–442; Zweifel 1972. *Bull. Am. Mus. Nat. Hist.* 148:1–140). Most frogs exhibiting this behavior are stout-bodied and some have fang-like teeth (Fabrezi and Emerson 2003, *op. cit.*).

We collected 14 specimens of the poorly known cryptobatrachid *Stefania woodleyi* in Kaieteur National Park, west-central Guyana. *Stefania woodleyi* is endemic to the southern Pakaraima region, Guyana (Señaris and MacCulloch 2005. *Bull. Biol. Soc. Washington* 13:9–23), and little is known about its ecology (MacCulloch and Lathrop 2002. *Herpetologica* 58:327–346). One of these specimens, IRSNB 13799, a male SVL 45.8 mm, collected 25 March 2006 at 2130 h, in the vicinity of Elinkwa River in the southeastern part of the park (5°09'46"N, 59°24'01"W; 550 m elev.) displayed an aggressive defensive behavior on two occasions. When first captured, and later while being photographed, the frog suddenly inflated its lungs, opened its mouth wide and jumped toward the handler's hand while emitting a single high-pitched cat-like "meow" distress call. The defensive mechanism was similar to an attempt to bite the handler's hand. The first "attack" was so surprising that the handler almost released the frog. Three other specimens from the same locality also displayed the same behavior with some variation. IRSNB 13801, a male SVL 47.3 mm collected 23 June 2006 at 2230 h only inflated its lungs and opened its mouth without jumping, emitting any distress call and/or attempting to "bite". IRSNB 13802, a female SVL 58.2 mm collected 26 June 2006 at 2130 h several times displayed the same aggressive defensive behavior as IRSNB 13799 and IRSNB 13803, a juvenile SVL 26.8 mm also displayed, but a single time only, the complete aggressive defensive behavior. This indicates that both sexes and juveniles display this defensive mechanism.

There is much intraspecific variation in defensive behaviors (Myers 1966, *op. cit.*), which may be influenced by ecological factors (Gomes et al. 2002. *Copeia* 2002:994–1005). Interestingly,

only some of the *S. woodleyi* collected in Kaieteur National Park displayed this aggressive antipredator mechanism and all of them were collected at the same locality, in the vicinity of Elinkwa River. As far as we know, this is the first report of aggressive defensive behavior within the genus *Stefania* and within the family Cryptobatrachidae. Unlike most anuran taxa that exhibit this type of behavior, *Stefania* are gracile, and lack fang-like teeth. Specimens are deposited in the herpetological collections of the Institut Royal des Sciences Naturelles de Belgique (IRSNB), Brussels, Belgium.

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