

Thanatosis (feigning death) in the frog *Ischnocnema aff. henselii* (Peters, 1870)

VINICIUS GUERRA BATISTA^{1*}, FABRÍCIO HIROIUKI ODA¹, WERTHER PEREIRA RAMALHO²
& DIOGO FERREIRA DO AMARAL³

¹Universidade Estadual de Maringá, Programa de Pós-Graduação em Ecologia de Ambientes Aquáticos Continentais, Bloco G-90, Av. Colombo, 5790, CEP 87020-900. Maringá, PR, Brazil

²Universidade Federal do Acre, Programa de Pós-Graduação em Ecologia e Manejo de Recursos Naturais, BR 364, Km 04, CEP 69915-900, Rio Branco, AC, Brazil

³Parque Zoológico de Goiânia, Alameda das Rosas, S/N - Setor Oeste, 74110-010, Goiânia, GO, Brazil

*Corresponding author email: vinicius.guerra__@hotmail.com

The evolution of defensive behaviours in amphibians has been attributed to selective pressures related to predator-prey interaction (Wells, 2007). These pressures involve the morphological and physiological costs of predation (Gans, 1986), which promote evolution and diversification of defensive strategies in anurans (Toledo et al., 2010). Feigning death or thanatosis is a strategy found in some *Ischnocnema* species (Toledo et al., 2010); however, the behaviour has not been reported for *Ischnocnema aff. henselii*.

I. aff. henselii is a nocturnal anuran endemic to the subtropical rain forests on the border from the Araucaria plateau in southern Brazil (Kwet & Solé, 2005). During field surveys in the municipality of Campo Largo, Paraná state, Brazil (-25.39725°S, -49.530964°W, SAD 69, 937 m a.s.l.), we observed two events of death-feigning behaviour in *I. aff. henselii* (Collection permit ICMBIO 46393-3). At the first event, on May 15 2014 at 2130 h, we captured three males calling in a wetland near a stream within remnant of Araucaria moist forest. When handled by the researcher, they turned their belly up, with eyes closed, arms upward and the legs away from the body, exhibiting yellowish colour on the ventral region (Fig. 1). After being manipulated, the individuals remained motionless even when touched. The frogs remained in this position for about two minutes, before slowly returning to normal position. On June 11, 2014, a young male and a female were captured at same locality presenting the same behaviour. Voucher specimens are housed at the Zoological Collection of the Federal University of Goiás (ZUFG), Goiás State, Brazil (ZUFG 9004; ZUFG 9005).

Anurans are an important component for the diet of a large number of vertebrates and invertebrates in natural ecosystems, despite having evolved several defensive strategies (Duellman & Trueb, 1994). Thanatosis is a strategy mostly displayed by non-toxic anuran species to avoid or minimise the risk of predation, in part at least because movement increases predation risk (Toledo et al., 2010). Species of *Ischnocnema* have cryptic colour and are very polymorphic (Hoffman & Blouin, 2000; Gehara et al., 2013), which can efficiently minimise the risk of predation. When performing thanatosis behaviour *I. aff. henselii* exhibit a yellowish colour on the ventral region, which may be a different form of crypsis (resembling a dead leaf). Previous records of thanatosis in species of *Ischnocnema* are scarce. Of the 33 species currently known (Frost, 2015), thanatosis was recorded in three species of the genera: *I. guentheri*, *I. juipoca* and *I. parva* (Toledo et al. 2010).

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Figure 1. Adult males *I. aff. henselii* exhibiting death-feigning behaviour in a remnant of Araucaria moist forest, Campo Largo Municipality, Paraná State, Brazil.

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