



The identity of the crackling, luminescent frog of Suriname (*Rana typhonia* Linnaeus, 1758) (Amphibia, Anura)

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Abstract

Review of the literature and recently available field notes from the collector of the type allows a reconsideration of the identity of the Linnaean name *Rana typhonia*. We provide evidence to demonstrate that the Linnaean species is neither a bufonid nor an Asiatic ranid, but a Neotropical hylid. Subsequently, we consider *Rana typhonia* as an older synonym of *Rana venulosa* Laurenti, 1768, redescribing its holotype under the new combination, *Trachycephalus typhonius* (Linnaeus, 1758).

Key words: Nomenclature, *Trachycephalus venulosus*, *Rana typhonia*, Holotype

Introduction

Although more than 250 years of Linnaean taxonomy have elapsed since the publication of Linnaeus's (1758) *Systema Naturae*, longstanding mistakes related to some of the very first species described under the Linnaean era (i.a., Dubois and Ohler, 1996; Lavilla *et al.* 2010) still persist. Here, we analyze the identity of *Rana typhonia* Linnaeus, 1758, and come to a radically different view on the identity of that frog. The tenth edition of *Systema Naturae* (Linnaeus 1758) marks the beginning of Linnaean taxonomy in zoology. In this work, Linnaeus included seventeen species of anurans, fifteen of which come from his previous contributions or those by diverse other authors. The remaining two, the only ones originally described by Linnaeus in that work, were the Palearctic *Rana variegata* (today in the genus *Bombina*) and the Neotropical *Rana typhonia*. During the last 250 years the name *Rana typhonia* was associated with a group of Neotropical toads with dorsolaterally expanded supratympanic crests (the *Bufo typhonius* or *margaritifer* phenetic group, *sensu* Duellman and Schulte 1992; Frost 2010). *Rana typhonia* was considered a junior synonym of the Asiatic *Hoplobatrachus tigerinus* (Daudin, An XI [1801]) by Hoogmoed (1989), based on Andersson (1900), who first proposed the synonymy. Although the priority of *Rana typhonia* Linnaeus, 1758 over *Rana tigerina* Daudin, An XI is evident, no formal taxonomic action was done. However, the identity of *Rana typhonia* is still an open question for several other reasons.

First, the Asian provenance of *Rana typhonia* is challenged by the fact that Linnaeus (1758) explicitly expressed that its origin was "America". Furthermore, he also explicitly quoted the name of the collector, Rolander (an exception among the amphibians included in the tenth edition of the *Systema Naturae*), referring to one of his disciples who traveled to Surinam. Second, based on: (a) Boie (1827), who analyzed a fragment