



Re-description of the type series of *Nectophrynoidea viviparus* (Bufonidae), with a taxonomic reassessment

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Abstract

The type series of *Nectophrynoidea viviparus* (Tornier, 1905) from the southern Tanzanian highlands has been rediscovered in the Museum für Naturkunde, Berlin. A re-description is given and a lectotype designated. Available topotypic material is included in our assessment of morphological variation in this population. With clarification of the species' identity, nomenclatural confusions can be addressed. We reject the designation of an earlier neotype, and also of records attributed to the species north and east of the Southern Highlands.

Key words: *Nectophrynoidea*, viviparous bufonid, Tanzanian highlands, Africa

Introduction

Confusion surrounds the taxonomic history of the bufonid species *Nectophrynoidea viviparus* (Tornier, 1905), occurring on highlands of southern Tanzania. The confusion arises mainly from a presumption that the type series was missing (Perret 1972), but there is also a questionable locality in the literature. We have been able to locate the 'lost' type series originally described by Tornier (1905) in the Museum für Naturkunde, Berlin, which prompts a re-description of this material and a consideration of some outstanding taxonomic and distributional problems.

Tornier (1905) described *N. viviparus* (then *Pseudophryne vivipara*) based on material collected from localities recorded as Rungwe, the Kinga [Ukinga] Mountains, and Dar es Salaam. From part of this series Nieden (1910) then described the species *Nectophrynoidea werthi* based on the material labelled from Dar es Salaam. He compared his *N. werthi* with *N. tornieri*, but appeared to have overlooked *N.* (then *Pseudophryne*) *viviparus*. Later, Perret (1971) synonymised *N. werthi* with *N. viviparus*, and he (Perret 1972) questioned the correctness of the Dar es Salaam record (as had Loveridge 1957). A former curator in Berlin, G. Peters, was unable to locate the original type series of *N. viviparus* described by Tornier (1905), and as a result Perret (1972) designated a neotype for the species. This was questioned by Poynton (Anon. 1996) who recorded that a "cotype" of *N. viviparus* from the Berlin museum had been accessioned in 1935 in the Natural History Museum, London (BM1947.2.1945), with the locality "S. E. Africa", being part of the original series collected by Fülleborn. Perret's neotype was from "Morogoro, Mt. Uluguru, Tanzanie", which is geographically remote from all the localities listed by Tornier (1905).

With the rediscovery of Tornier's material in the Berlin museum we aim to stabilise the nomenclature by designating a lectotype from Tornier's material and re-describing it. Furthermore, we provide measurements