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An African glass frog: A new *Hyperolius* species (Anura: Hyperoliidae) from Nyungwe National Park, southern Rwanda

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Abstract

A new species of *Hyperolius* is described from Nyungwe National Park in southern Rwanda. The new species differs from its congeners by a unique combination of morphological characters, including a light green dorsum and a transparent ventral skin resembling glass frogs of the Neotropical family Centrolenidae, blue-coloured bones, reduced toe webbing, relatively wide head, acuminate snout, small to medium size (SUL of adult males 18.8–23.2 mm), and the presence of nuptial pads. The advertisement call differs from all calls of other species of the genus that have been analyzed. Comparison of the mitochondrial 16S rRNA gene showed a relatively close relationship to *H. castaneus*, *H. cystocandicans*, *H. discodactylus*, *H. frontalis*, and *H. lateralis*. The 16S sequence of the new species differs by at least 4.5% in the uncorrected p-distance from all available sequences of other species of the genus.

Incamake

Ubwoko bushya bwa *Hyperolius* buboneka muri parike nasiynali ya Nyungwe mu majyepfo yu Rwanda. Ubu bwoko bushya butandukaniye na bugenzi bwabwo gusa kurusobe rw'miterere yabwo, harimo dorsum ifite ibara ry'cyatsi cyerurutse n'ruhu rubonerana rwo kunda, amagufwa afite ibara ry'bururu, n'tunodufatanijwe n'gahu, umutwe wenda kuba munini, umunwa uurungushuye, umubyimba uri hagati ya 18,8 mm kugera kuri 23,3 mm ku ngabo nkuru, ikagira n'magaragamba ku ruhu. Kuzitangaza kwazo byagiye bitandukana n'matangazo yabaye kubundi bwoko bwazo. Ugereanije n'miterere yazo idahinduka (mitochondrial 16S rRNA gene) niyizindi usanga bifitanye isano ya bugufi na *H. castaneus*, *H.cystocandicans*, *H.discodactylus*, *H.frontalis* na *H. lateralis*. Urukurikirane rwa 16S y'bu bwoko bushya rutandukanye kuri 4,5% ugereranije n'nkurikirana zabaye z'bundi bwoko busa n'bu.

Key words: *Hyperolius jackie* **sp. n.**, Albertine Rift, endemism, advertisement call, species barcoding, Amphibia.

Introduction

Among the sub-saharan amphibians, reed frogs (*Hyperolius*) have undergone the highest degree of radiation. Currently, about 120 species are considered valid (Frost 2011). Taxonomy of this genus is difficult because species are often poor in external morphological characters that allow differentiation, intraspecific variation of characters can be high, and the original descriptions of a number of species do not provide useful diagnostic characters. Furthermore, the type specimens of several species are considered lost or have been damaged, hindering or complicating their re-examination. The introduction of other techniques, especially the comparison of the advertisement call and the use of molecular genetics has simplified in many cases the differentiation between taxa and has led to the discovery of cryptic diversity within the genus (e.g. Wieczorek *et al.* 2001, Channing *et al.* 2002, Rödel *et al.* 2010, Schick *et al.* 2010).

The Central African mountain ranges of the Albertine Rift are among the biodiversity centres of the African continent and harbour a huge number of locally endemic species (Plumptre *et al.* 2007). One of the largest remaining forests of this area is the Nyungwe Forest in southern Rwanda. Most of the field work on its herpetofauna was conducted at the beginning of the 20th century, the results of which were mainly published by Nieden (1911, 1913) and Ahl (1931).

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