A new tree-frog genus and species from Ivory Coast, West Africa (Amphibia: Anura: Hyperoliidae)

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Abstract

We describe a new genus and species of hyperoliid tree-frog from the Upper Guinean rain forest, West Africa. Morerella gen. nov. Rödel, Kosuch, Grafe, Boistel & Veith is characterized by a slender body and large protruding eyes; a horizontal oval pupil; a small but distinct tympanum; a medium sized, medioposterior gular gland, without thin dilatable skin beneath and around the gland in males; spinosities on back and on extremities of males; sphenethmoid not visible dorsally; ventroanterior portion of sphenethmoid unfused; non-imbricate neural arches that do not completely roof the spinal canal; transverse processes of eighth vertebra not angled markedly forward; a greatly forked omosternum; a completely ossified sternum; posterolateral process of hyoid absent and anterior horn composed of an anteromedial and a lateral process; round discs on finger and toe tips; completely mineralized intercalary elements of phalanges; sexes dichromatic in coloration; short tonal advertisement call, notes grouped, not pulsed; terrestrial eggs and aquatic larval stages. The new genus differs genetically from other hyperoliid genera by 18-35% sequence divergence (>1300 bp of cytochrome b, 16S and 12S rRNA sequences). Its phylogenetic relationships within this family remain obscure. So far the genus is comprised of one species, Morerella cyanophthalma sp. nov. Rödel, Assemian, Kouamé, Tohé & Perret, that is only known from a few sites in the Banco National Park, Ivory Coast. Specimens from another Ivorian locality, the Azagny National Park, may be conspecific. Based on the IUCN red list criteria, the new species is classified as Critically Endangered.

Key words: Morerella gen. nov., Morerella cyanophthalma sp. nov., conservation, phylogeny, natural history, rainforest, West Africa