



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

MARK-OLIVER RÖDEL^{1,10}, JOACHIM KOSUCH², T. ULMAR GRAFE³, RENAUD BOISTEL^{4,8},
N. EMMANUEL ASSEMIAN⁵, N'GORAN G. KOUAMÉ⁵, BLAYDA TOHÉ⁵, GERMAIN GOURÈNE⁵,
JEAN-LUC PERRET⁶, KLAUS HENLE⁷, PAUL TAFFOREAU⁸, NICOLAS POLLET⁹ &
MICHAEL VEITH²

¹Museum für Naturkunde, Leibniz Institute for Research on Evolution and Biodiversity at the Humboldt University Berlin, Herpetology, Invalidenstr. 43, 10115 Berlin, Germany. E-mail: mo.roedel@mfn-berlin.de

²University of Trier, Biogeography, Am Wissenschaftspark 25-27, 54296 Trier, Germany

³University of Brunei Darussalam, Department of Biology, Tungku Link, Gadong BE 1410, Brunei Darussalam

⁴Université Paris Sud, Equipe Communications Acoustiques, NAMC, CNRS UMR 8620, IBAIC Bat 446, F-91405 Orsay, France; present address: ⁸

⁵Université d'Abobo-Adjamé, Laboratoire d'Environnement et Biologie Aquatique, UFR-SGE, 02 BP 801, Abidjan 02, Côte d'Ivoire

⁶Muséum d'histoire naturelle, Department of Herpetology and Ichthyology, C.P. 6434, CH-1211 Genève 6, Switzerland

⁷UFZ – Helmholtz Centre for Environmental Research, Department of Conservation Biology, Permoserstr. 15, 04318 Leipzig, Germany

⁸European Synchrotron Radiation Facility, B.P. 220, F-38043 Grenoble, France

⁹Epigenomics Project, Genopole, Univ Evry Val d'Essonne, 91034 Evry cedex, France

¹⁰Corresponding author. E-mail: mo.roedel@mfn-berlin.de

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, Asseman, 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