

New Frogs (Anura: Microhylidae) from the Mountains of Western Papua New Guinea

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ABSTRACT. I describe two new species of microhylid frogs from the mountains of the central cordillera of western Papua New Guinea. One of these is in the arboreal genus *Oreophryne*; the other is in the fossorial genus *Xenorhina*. The *Oreophryne* is one of the largest members of the genus and is characterized by a ligamentous connection of the procoracoid to the scapula, webbing between the toes, fifth toe equal in length to the third, and a relatively short leg, wide head, long and narrow snout, and small finger discs. The *Xenorhina* species is among the smallest species of the genus and is distinguished by having a single odontoid spike, discs with circum-marginal grooves on all toes but the first, inflated lores, and a relatively long leg, short and broad head and snout, and features of color pattern. The *Oreophryne* is known from two localities approximately 30 km apart, and the *Xenorhina* is known only from its type locality. Both occur in the high mountains of Western Province, Papua New Guinea.

KRAUS, FRED, 2011. New frogs (Anura: Microhylidae) from the mountains of western Papua New Guinea. *Records of the Australian Museum* 63(1): 53–60.

Frogs are a major component of vertebrate biodiversity in the Papuan region (New Guinea and associated islands plus the Solomon Islands), with >400 species described from the region to date. This represents almost 6% of global amphibian diversity in an area comprising approximately 0.5% of the world's land area. This diversity no doubt stems from the region's high degree of mountainous terrain and insularization, both of which promote isolation and speciation. Yet the Papuan region's amphibian diversity remains poorly surveyed and described. Ongoing surveys have identified scores of new species requiring description, and additional undescribed species from earlier collections reside in museums. Many of these are not easily diagnosed because they lack information on advertisement calls or color in life that frequently allow for ready distinction among close relatives. However, some species are sufficiently distinctive morphologically that they present no difficulty in being diagnosed from already-known species. I identified several such species while working in the herpetological collection of the Australian Museum, Sydney in 2006 and 2007. Some of these have subsequently been described (Richards, 2007;

Richards *et al.*, 2007). I take this opportunity to describe two of the remaining species, both members of the family Microhylidae. Each is from the mountains of the central cordillera of Papua New Guinea.

Materials and methods

All measurements were made with digital calipers or an optical micrometer to the nearest 0.1 mm, with the exception that disc widths were measured to the nearest 0.01 mm. Measurements, terminology, and abbreviations follow Zweifel (1985) and Kraus and Allison (2005a, b): body length from snout–vent (SV); tibia length from heel to outer surface of flexed knee (TL or TL_{knee}); horizontal diameter of eye (EY); distance from anterior corner of eye to center of naris (EN); internarial distance, between centers of external nares (IN); distance from anterior corner of eye to tip of snout (SN); head width at widest point, typically at the level of the tympana (HW); head length, from tip of snout to posterior margin of tympanum (HL); horizontal tympanum diameter (TY); width of the third finger disc (3rdF); width of the