



Two new species of *Choerophryne* (Anura, Microhylidae) from the northern versant of Papua New Guinea's central cordillera

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Abstract

We describe two new species of small microhylid frogs in the genus *Choerophryne* from the northern slopes of Papua New Guinea's central cordillera. *Choerophryne epirrhinus* **sp. nov.** can be distinguished from congeners by the combination of moderately small size (SUL 14.9–15.0 mm), distinctly elongated snout (OHG/SUL 0.09–0.10), first finger without expanded disk, and advertisement call consisting of 3–4 distinctly pulsed notes repeated in long sequences. *Choerophryne grylloides* **sp. nov.** can be distinguished from congeners by the combination of very small size (SUL 12.5 mm), moderately long snout (OHG/SUL 0.08), long legs (TL/SUL 0.42), first finger without expanded disk and advertisement call consisting of 4–5 distinctly pulsed notes, the last of which has many more pulses than preceding notes (9–10 vs. 3–4).

Key words: frog, miniaturisation, systematics

Introduction

Studies over the last decade have revealed an exceptionally high number of previously undescribed frog species from New Guinea, particularly in the family Microhylidae (Günther & Richards 2011; Kraus 2012; Günther *et al.* 2014). For example, known diversity of the small to very small (11–23 mm SUL) frogs with a distinctive nasal projection in the microhylid genus *Choerophryne* has more than trebled from three species when the group was reviewed around a decade ago (Kraus & Allison 2001), to eleven in 2014 (Richards & Burton 2003; Richards *et al.* 2007; Günther 2008; Kraus 2013; Iannella *et al.* 2014).

The recent discovery that the microhylid genus *Albericus* is paraphyletic with respect to *Choerophryne* (Peloso *et al.* 2015) resulted in the synonymisation of that genus with *Choerophryne*, further increasing its diversity. However the 11 previously recognised *Choerophryne* form a morphologically discrete and largely monophyletic clade within the genus (Iannella in prep) that, with the exception of *C. bryonopsis* (which has a snout projection intermediate between *Albericus* and *Choerophryne*; Kraus 2013) is distinguished by a distinctly projecting snout. To distinguish these frogs from the blunt-snouted *Choerophryne* recently transferred to the genus from *Albericus*, we refer to them here as 'long-nosed *Choerophryne*'.

Long-nosed *Choerophryne* are most diverse in the lowlands and isolated ranges of northern New Guinea (Kraus & Allison 2001; Günther 2008), but during the last decade three species have been documented from the southern slopes of the main cordillera in central Papua New Guinea (Richards & Burton 2003; Richards *et al.* 2007; Iannella *et al.* 2014). Records from the intervening region along the northern versant of the central cordillera are lacking to date. However, recent surveys in the headwaters of the Sepik River have revealed two previously unknown species of long-nosed *Choerophryne*, representing the first records from the northern slopes of Papua New Guinea's central mountains. These two new species are described herein.