



A new large green species of *Litoria* (Anura: Hylidae) from western New Guinea

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Abstract

A new species of large green treefrog of the genus *Litoria* is described from the Mamberamo Basin of western New Guinea. It can be distinguished from all congeners by a suite of characteristics including moderately large size (male SVL 56–68 mm), moderate finger webbing, labial stripe absent or very indistinct, and lateral body surfaces and webbing with distinctive light purple colouration. Morphologically, the new species is most similar to *Litoria sanguinolenta* and, to a lesser extent, *L. infrafronata*. However, the advertisement call, a very long series of monotonously repeated, distinctly pulsed notes, differs from the calls of these two species.

Key words: Amphibia, Hylidae, *Litoria*, new species, New Guinea, Indonesia

Introduction

Large green treefrogs of the genus *Litoria* Tschudi are a distinctive component of the New Guinean herpetofauna but their taxonomy is poorly resolved due to the paucity of material available for study (Richards & Oliver 2006). For example, the large canopy-dwelling frog *L. graminea* (Boulenger) was included in the *L. aruensis* species-group by Tyler & Davies (1978), was associated with the *L. chloris* species-group by Menzies & Tyler (2004), but was treated as a species distinct from any recognised ‘complex’ by Menzies (2006). Finally, *L. graminea* as treated by all recent authors was shown to be an assemblage of at least four species without obvious affinities to other New Guinean species of *Litoria* (Richards *et al.* 2006, Richards & Oliver 2006).

Three other species of large (i.e. SVL > 50 mm) green *Litoria* are known from New Guinea. *Litoria caerulea* (White) is a robust species that is easily distinguished from *L. graminea* and all other large green *Litoria* by its short legs and distinct glandular supra-tympanic fold (Menzies 2006). The two remaining species, *L. infrafronata* (Guenther) and the poorly-known *L. sanguinolenta* (van Kampen), differ from it and from the *L. graminea* group of species (Richards & Oliver 2006) in their more slender build and reduced finger webbing. During a biodiversity survey in the southern Mamberamo Basin of Papua Province, Indonesia (Richards & Suryadi 2002), three of the authors (SR, BT and DI) found a large green undescribed species of *Litoria* that shares with *L. infrafronata* and *L. sanguinolenta* a combination of slender build and moderately-webbed fingers. However it differs from both of these species in a number of key characters including its unique advertisement call, and is herein described as a new species.