



## A new species of *Uperoleia* (Anura: Myobatrachidae) from the northwest Kimberley, Western Australia

PAUL DOUGHTY<sup>1,3</sup> & J. DALE ROBERTS<sup>2</sup>

<sup>1</sup>Department of Terrestrial Zoology, Western Australian Museum, 49 Kew Street, Welshpool WA 6106, Australia.

E-mail: paul.doughty@museum.wa.gov.au

<sup>2</sup>School of Animal Science, University of Western Australia, Crawley WA 6009, Australia. E-mail: droberts@cyllene.uwa.edu.au

<sup>3</sup>Corresponding author

### Abstract

*Uperoleia* is a large genus of small-bodied terrestrial frogs that occur in Australia and southern New Guinea. With nine species, the Kimberley region in northern Western Australia is the most diverse. Recent surveys of the northwest coast of the Kimberley have revealed a tenth species of *Uperoleia*. The new species is characterized by a combination of small body size, dark and slightly tubercular dorsal skin, basal webbing between the toes, outer metatarsal tubercle spatulate and oriented perpendicular to the foot, possession of maxillary teeth, a broadly exposed frontoparietal fontanelle and the advertisement call is a high-pitched rasp. All specimens collected have been associated with sandstone boulders or escarpments with flowing water or rock pools. The northwest Kimberley is an isolated region of high rainfall and rugged terrain that possesses high biodiversity for many plant and animal groups and is therefore worthy of special conservation attention.

**Key words:** frog, *Uperoleia*, call analysis

### Introduction

The Myobatrachidae is a diverse family of small-bodied frogs from Australia and southern New Guinea (Littlejohn *et al.* 1993; Tyler & Doughty (in press)). Within the Myobatrachidae, the genus *Uperoleia* Gray, 1841 is the most speciose with 25 currently recognized species. *Uperoleia* species are small (2–4 cm), squat and short-limbed frogs that are typically drably coloured and terrestrial. They have moderately developed parotoid, dorsolateral/inguinal and coccygeal glands which may be marked with orange or gold. There is usually a red or orange femoral and tibial patch that may function as ‘flash’ colouration when the legs are extended. Advertisement calls are simple, consisting of rasps or clicks.

Until the revision of *Uperoleia* by Tyler *et al.* (1981a), confusion surrounded the distribution of the type species (*U. marmorata* Gray, 1841), the status of *Glauertia* and the number of species. Tyler *et al.* (1981a) restricted the distribution of *U. marmorata* to the vague collection location of the holotype, synonymized *Glauertia* with *Uperoleia* and described nine new species (one of which, *U. variegata* Tyler, Davies & Martin, 1981, was later synonymized by Tyler *et al.* 1986). Tyler *et al.* (1981b,c) described two more species and Davies and colleagues (Davies *et al.* 1985; Davies & Littlejohn 1986; Davies *et al.* 1986; Davies *et al.* 1993) described eight more species. Recently, Young *et al.* (2005) described a small-bodied *Uperoleia* from just outside the Darwin metropolitan area, underscoring the potential for further unrecognized diversity within the genus.

*Uperoleia* are distributed chiefly in the wetter northern and eastern regions of Australia, but can penetrate more arid regions, i.e. *U. russelli* Loveridge, 1933 and *U. glandulosa* Davies, Mahony & Roberts, 1985 in the Pilbara region, *U. micromeles* Tyler, Davies & Martin, 1981 in the northwestern deserts, *U. trachyderma* Tyler, Davies & Martin, 1981 in the Northern Territory and *U. capitulata* Davies, McDonald & Corben, 1986