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A new species of velvet gecko (Diplodactylidae: *Oedura*) from north-east Queensland, Australia

CONRAD J. HOSKIN [1,3] & MEGAN HIGGIE[2]
School of Botany and Zoology, The Australian National University, Canberra, ACT 0200, Australia.
E-mail: [1]conrad.hoskin@anu.edu.au; [2] m.higgie@gmail.com
[3]Corresponding author

Abstract

We describe a new species of velvet gecko (Diplodactylidae: *Oedura*) from north-east Queensland, Australia. *Oedura jowalbinna* **sp. nov.** is a robust, medium-sized (SVL 60–69 mm) gecko that is readily distinguished from its congeners by its distinctive dorsal colour pattern. The dorsum is grey with faint freckling and a pale, dark-edged band across the neck and another across the base of the tail. The combination of a yellow tail and a grey body is also distinctive. *Oedura jowalbinna* **sp. nov.** also differs significantly from the most similar congener, *O. coggeri*, in a multivariate analysis of morphology and scalation, primarily due to its smaller body size, higher interorbital, supralabial and infralabial scale counts, and lower subdigital lamellae scale count. These traits are generally non-overlapping between *O. jowalbinna* **sp. nov.** and *O. coggeri*, however, more individuals of *O. jowalbinna* **sp. nov.** need to be assessed to accurately determine variation within the new species. All *O. jowalbinna* **sp. nov.** were found at night on overhangs in dissected sandstone escarpment south-west of the town of Laura. Surveys are required to determine the distribution of *O. jowalbinna* **sp. nov.** across the sandstone escarpments of the Laura region. This species is the third reptile species (along with the skinks *Ctenotus quinkan* and *C. nullum*) described that has a highly localised range centred on the sandstone escarpments of the Laura region. Additionally, included herein is a comparison of *O. coggeri* and *O. monilis*. Typical dorsal colour pattern differs between these two species but the large amount of variation (particularly in *O. coggeri*) merges these differences. *Oedura coggeri* and *O. monilis* could not be distinguished in multivariate analyses of morphology and scalation. Genetic data and further analyses of colour pattern, morphology and scalation are required to resolve species boundaries within and between these two species.

Key words: *Oedura jowalbinna*, *Oedura coggeri*, *Oedura monilis*, *Oedura castelnaui*, Laura, Quinkan, sandstone, morphology, principal components analysis

Introduction

Oedura Gray 1842 is an endemic Australian gecko genus with 14 described species (Cogger 2000; Wilson & Swan 2003; Couper *et al.* 2007). The genus is distributed over much of Australia, with the highest diversity in northern and eastern Australia. *Oedura* are arboreal or rock-dwelling (Cogger 2000; Wilson & Swan 2003; Wilson 2005) with several species occurring primarily on rock (*O. coggeri* Bustard 1966; *O. lesueurii* Duméril & Bibron 1836; *O. tryoni* De Vis 1884) and four species found almost exclusively on rock (*O. filicipoda* King 1984; *O. gemmata* King & Gow 1983; *O. gracilis* King 1984; *O. obscura* King 1984) (Cogger, 2000; Wilson & Swan 2003). The four rock-restricted species are highly localised to the Kimberley sandstone escarpment in Western Australia (*O. filicipoda*, *O. gracilis*, and *O. obscura*) or the Arnhem sandstone escarpment of Northern Territory (*O. gemmata*).

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