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A new species of *Pygopus* (Pygopodidae; Gekkota; Squamata) from north-eastern Queensland

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Abstract

Based on a combination of morphological and genetic data, geographically isolated populations of *Pygopus* from north-eastern Queensland, formerly referred to *Pygopus lepidopodus* (Lacépède), are herein described as a new species. *Pygopus robertsi* **sp. nov**. can be diagnosed from its congeners by a suite of scalation characters, including fewer keeled dorsal scales, presence of a single continuous row of supracilaries and a lower number of midbody scale rows. It is also deeply divergent genetically from samples of *Pygopus lepidopodus* from southern Australia. The known distribution of *Pygopus robertsi* **sp. nov.** is similar to that of a number of taxa centred upon relatively dry ecotonal habitats at the western edge of the rainforest blocks of north-eastern Queensland. Additional samples and systematic work will be required to examine the evolutionary divergence of apparently isolated populations of the new species, and the significance of considerable genetic and morphological diversity within remaining populations of *Pygopus lepidopodus* from south-eastern and southern Australia.

Key words: *Pygopus lepidopodus*, wet tropics, Burdekin Gap, Laura Gap

Introduction

The legless lizards (family Pygopodidae) are a unique radiation of limb-reduced geckos restricted to Australia and New Guinea (Greer 1989). The scaly-foot lizards in the genus *Pygopus* are one of the most widespread and well-known lineages within this radiation. However, despite a distribution spanning most of Australia, only four largely allopatric species of *Pygopus* are currently recognised (James *et al*. 2001; Wilson & Swan 2007), although some workers have also placed the monotypic genus *Paradelma* within *Pygopus* (Kluge 1976; Jennings *et al*. 2003). Three species, colloquially referred to as the hooded scaly-foots, share a number of morphological characters and were until recently regarded as a single widespread species *Pygopus nigriceps* (Fischer). A recent molecular and morphological revision (James *et al*. 2001) restricted this taxon to the western and central arid zone, recognised *Pygopus schraderi* Boulenger as a full species from Australia's eastern arid zone and described a new species, *Pygopus steelescotti* James, Donnellan & Hutchinson from northern Australia.

A fourth species within the genus, *P. lepidopodus* (Lacépède), is distinct from its congeners in colouration, morphology and preferred habitat (James *et al*. 2001, see below). Although it was the first species of pygopod described, there has been no subsequent analysis of geographic variation within this taxon. As currently recognised, *P. lepidopodus* has a wide and relatively continuous range across temperate southern and south-eastern Australia (although there is a distinct gap across central Victoria; Swan *et al*. 2004). However, a number of additional and apparently highly disjunct populations also referred to this species are known from scattered localities in far north-eastern Queensland, spanning over 600 km from the Atherton Tablelands in the south to Heathlands near the tip of Cape York (Covacevich & Couper 1991; James *et al*. 2001). These

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