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A new bent-toed gecko (Squamata: Gekkonidae: *Cyrtodactylus*) from the Kimberley region, Western Australia

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Abstract

A diminutive new species of *Cyrtodactylus* is described from East Montalivet Island off the north coast of the Kimberley region of Western Australia. *Cyrtodactylus kimberleyensis* **sp. nov.** may be distinguished from all other congeners by its small size (gravid female holotype 45 mm SVL), its lack of enlarged subcaudal plates, 16–18 rows of dorsal tubercles, weakly developed ventrolateral skin fold, and dorsal pattern lacking dark transverse bands and enlarged blotches. The new species is one of the smallest in the genus and is the first *Cyrtodactylus* known from Western Australia. It is not closely related to the large-bodied species of the Cape York Peninsula, Queensland, but rather has affinities to small to mid-sized species occurring on Timor and in the Lesser Sundas, and thus represents a second pathway of colonization of northern Australia.

Key words: biogeography, Gekkonidae, *Cyrtodactylus kimberleyensis* **sp. nov.**, description, taxonomy

Introduction

Bent-toed geckos of the genus *Cyrtodactylus* Gray are the most species-rich of all gekkotan genera, with over 140 species and more than half of these have been described in the last decade (Uetz 2011). The greatest rate of new discovery in the group has been in Southeast Asia, particularly Vietnam (e.g., Ziegler *et al.* 2010; Ngo 2011 and references therein), Thailand (Bauer *et al*. 2010; Sumontha *et al*. 2010 and references therein), Malaysia (Chan & Norhayati 2010; Grismer *et al*. 2010 and references therein), and Myanmar (Burma) (Bauer 2003; Mahony 2009 and references therein), but more recently new taxa have been recognized from Laos (David *et al*. 2004; Ngo & Pauwels 2010; Nguyen *et al.* 2010; Schneider *et al*. 2011) and the Philippines (Welton *et al.* 2009, 2010a, 2010b). From mainland Asia the distribution of *Cyrtodactylus* extends southeastwards through the islands of Indonesia to New Guinea and thence to north Queensland, Australia and to the Solomon Islands (Rösler *et al.* 2007). Numerous new taxa have been described from Sulawesi (Hayden *et al*. 2008; Linkem *et al*. 2008; Iskandar *et al.* 2011) and New Guinea (Kraus & Alison 2006; Kraus 2007, 2008; Rösler *et al.* 2007; Oliver *et al*. 2008, 2011), but the recognized diversity of the genus in Australia has remained low.

Following nearly a century of obscurity, *Hoplodactylus tuberculatus* Lucas & Frost was transferred to *Cyrtodactylus* and synonymized with *C. louisiadensis* (de Vis) by Kluge (1963). Another species based on Australian material, *Gymnodactylus olivii* Garman was likewise synonymized with *C. louisiadensis* (Waite 1905) and its provenance questioned. *Cyrtodactylus tuberculatus* was resurrected by Wells & Wellington (1984), although no diagnostic features were given to distinguish it from *C. louisiadensis.* A thorough revision of Australian *Cyrtodactylus* (Shea *et al.* 2011) has recognized a total of five members of the genus in Australia, all restricted to portions of northern Queensland. All of the Australian taxa are part of a larger Australo-Papuan clade, which minimally also includes *C. novaeguineae* (Schlegel), *C. zugi* (Oliver, Tjaturadi, Mumpuni, Krey & Richards), *C. sermowaiensis* (de Rooij), *C. loriae* (Boulenger), *C. salomonensis* Rösler, Richards & Günther, and the members of the *C. louisiadensis* group (Kraus 2008) or, in other words, all of the members of the genus from east of Wallacea thus far included in a phylogenetic analysis. Most of these species are similar morphologically, with large body size (usually >100 mm snout-vent length [SVL]) and a boldly banded dorsal pattern.

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