



Taxonomic partitioning of *Cyrtodactylus lousiadensis* (Lacertilia: Gekkonidae) from Papua New Guinea

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Abstract

As recently understood, the gecko species *Cyrtodactylus lousiadensis* (de Vis, 1892) ranges across eastern New Guinea and adjacent islands, the Solomon Islands, and northern Queensland. Within that portion of its range encompassed by Papua New Guinea I show that five species are currently masquerading under this appellation. Two of these occur in sympatry at the type locality for the species, Sudest Island. Because the type specimen is lost, the taxonomy of this complex has been confused, and two species are present at the type locality, I designate a neotype for *C. lousiadensis* so as to stabilize taxonomy within this complex. I describe the four additional species, *C. epiroticus* sp. nov., *C. klugei* sp. nov., *C. robustus* sp. nov., and *C. tripartitus* sp. nov., which differ from each other in a variety of scalational, mensural, and color-pattern features. Four of these species are confined to single islands off the southeastern peninsula of New Guinea. The fifth occupies the eastern rim of New Guinea.

Key words: lizard, gecko, Milne Bay, Sudest Island, Rossel Island, Misima Island

Introduction

The gekkonid genus *Cyrtodactylus* is the most speciose member of its family in the Papuan region, with 15 species described to date (Brown and Parker, 1973; Brown and McCoy, 1980; Rösler, 2001; Günther and Rösler, 2003; Kraus and Allison, 2006; Kraus, 2007a; Rösler et al., 2007) and many undescribed species residing in museums (Rösler et al. 2005; Kraus, 2007a). Among this assemblage, *C. lousiadensis* (de Vis) has long been treated as a single species ranging from northern Queensland across easternmost New Guinea and associated islands to the Solomon Islands (e.g., Bauer and Henle, 1994). However, Rösler et al. (2007) have recently applied the old name *C. tuberculatus* (Lucas and Frost, 1900) for animals from Queensland and described a new species, *C. salomonensis* Rösler, Richards and Günther 2007, to accommodate two specimens from the Solomon Islands. Furthermore, a member of this complex, endemic to Woodlark Island, was earlier described as *C. murua* (Kraus and Allison, 2006). Additional species in this complex exist from Australia (G. Shea, pers. comm.). The same may be true in the Solomon Islands inasmuch as the description of *C. salomonensis* (Rösler et al., 2007) omitted any review of specimens across those islands.

Among Papuan *Cyrtodactylus*, members of the *C. lousiadensis* complex are uniquely characterized by having a single row of enlarged subcaudals, high precloacal/femoral pore counts, and only 4–7 dark bands on the body (Brown and Parker, 1973; Kraus and Allison, 2006; Rösler et al., 2007). The only other Papuan *Cyrtodactylus* with enlarged subcaudals are *C. aaroni* Günther and Rösler and *C. mimikanus* (Boulenger), both of which have lower precloacal/femoral pore counts and 8–11 dark dorsal body bands (Brown and Parker, 1973; Günther and Rösler, 2003; Rösler et al., 2007).