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Author

Oliver, PM, Switak, KH

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A range extension for the New Guinean gecko *Cyrtodactylus arcancus* Oliver, Sistrom, and Richards, 2012 (Squamata: Gekkonidae)

Paul M. Oliver^{1,*} and Karl H. Switak²

Recognised diversity of geckos in the genus *Cyrtodactylus* from Melanesia currently stands at over 30 species (Tallowin et al. 2018), of which more than half have been described in the last two decades (Rösler 2001; Rösler et al. 2007; Kraus 2008; Oliver et al. 2012, 2016; Nielsen & Oliver 2017). However, like many other tropical lizards (Meiri et al. 2018) several Melanesian species of *Cyrtodactylus* remain known from very few specimens and/or have imprecise collection locality data (e.g., *Cyrtodactylus irianjayensis* Rösler, 2001 and *Cyrtodactylus minor* Oliver & Richards, 2012).

Cyrtodactylus arcamus Oliver, Sistrom and Richards, 2012 was hitherto known from only two female specimens held at the Australian Museum that were collected in 1987 from the vicinity of Bundi village (~5.47S, 145.27E: exact locality and altitude unknown) in Madang Province, Papua New Guinea. It is morphologically distinct from all other *Cyrtodactylus* in New Guinea (Oliver et al. 2012). Since its description no additional specimens appear to have been collected or reported in the literature. Accordingly, this species was classified as Data Deficient by the IUCN (Tallowin and Oliver 2015).

Here we report a second locality for this species based on a photograph (Fig. 1) obtained by one of the authors (Karl Switak) in 1973 from approximately 70 km east of Bundi village. The specimen was brought by local villagers into a camp on the banks of the Sau River, Jiwaka Province (5.5014S, 144.5805E, ~540 m: co-

ordinates and elevation estimated from Google Earth), photographed and released. As this animal was brought in by local villagers it is highly likely that it was captured in hill forest within one day walk from the campsite.

The specimen in the photograph can be distinguished from all known species of New Guinean *Cyrtodactylus* except *C. arcanus* and *C. capreoloides* Rösler, Richards, and Günther, 2007 by the combination of:



Figure 1. *Cyrtodactylus arcamus* from near the junction of the Sau and Jimi Rivers in Jiwaka Province, Papua New Guinea. Photograph by Karl H. Switak.

¹ Environmental Futures Research Institute, Griffith University, 170 Kessels Rd., Brisbane, Queensland 4121, and Biodiversity and Geosciences Program, Queensland Museum, South Brisbane, Queensland, 4101 Australia

² 6377 Stone Bridge Road, Santa Rosa, California, USA

* Corresponding author. E-mail: p.oliver@griffith.edu.au

dorsal surface of head without pattern; thin yet distinct medium-brown nuchal band; moderate number (six) of medium-brown transverse and very thin blotches on a pale-brown background; and moderate size (total length recorded as '6 inches' in field notes). The key scalation character that separates *C. arcanus* from *C. capreoloides* (widened subcaudals on original tail) cannot be inferred from the photographs. However, *C. capreoloides* is only known from hill and lower montane forests on the other (southern) side of New Guinea's Central Cordillera in the Gulf and Western Provinces (Oliver et al. 2012). Although some species of *Cyrtodactylus* appear to have wide distributions across either the northern or the southern portions of central New Guinea, recent taxonomic revisions and genetic analyses have indicated that no species occur on both sides of the Central Cordillera (Oliver et al. 2016; Tallowin et al. 2018). Therefore, based on geography we argue that the specimen from the vicinity of the Sau River (northern New Guinea) is likely to be *Cyrtodactylus arcanus*, not *Cyrtodactylus capreoloides* (southern New Guinea).

The locality of the camp at the Sau River lies at ~540 m. The surrounding region from which the specimen could have been collected by local villagers extends to over 2000 m a.s.l, however *Cyrtodactylus* in New Guinea have not been recorded above ~1500 m. Some extensive tracts of hill and lower montane forest remain at elevations between 500–1500 m in the region between Bundi and Sau River. However, given the extensive fragmentation of forest in this region it is possible that populations of *Cyrtodactylus arcanus* have declined in recent decades. Until its distribution, ecology, and tolerance for human induced disturbance are better known, we suggest that its IUCN status should remain 'Data Deficient'.

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