



On the status and relationships of the gecko species *Gehyra barea* Kopstein 1926, with description of new specimens and a range extension

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Abstract

Gehyra barea is a poorly known gecko species from the southern Banda Islands, Maluku Province, Indonesia, that has received scant attention since it was described in 1926. A combination of morphological characters distinguish the types of this species from all other described *Gehyra*, and suggest that it is a distinct taxon. These same morphological characters occur in two recently collected specimens from the Raja Ampat Islands, just off the west coast of New Guinea, that we assign to this species, extending the known range of the taxon by over six hundred kilometres. We provide a revised and extended diagnosis and description of the species based on these new specimens. Morphological and genetic data from these specimens indicate *G. barea* is closely related to *Gehyra baliola* from further east in southern New Guinea, and that these species form a clade with *Gehyra oceanica*. *Gehyra* is a taxonomically challenging group, and the status of most species from the Melanesian region is in need of review.

Key words: Banda Islands, *Gehyra barea*, Gekkonidae, New Guinea, Raja Ampat Islands

Introduction

The gekkonid genus *Gehyra* currently comprises approximately 35 recognised species (Uetz and Hallerman 2009), but karyotypic, morphological and molecular data suggest that numerous species await recognition (King *et al.* 1989, Fisher 1997, Rocha *et al.* 2009, Sistrom *et al.* 2009). The distribution of the genus is centred on the Australopacific region, although at least one species, *Gehyra mutilata*, has been anthropogenically dispersed through tropical regions across the world. While the northern half of Australia has the highest diversity (Horner 2005), eight species have been described from New Guinea and surrounding islands (*G. baliola* Duméril, *G. barea* Kopstein, *G. interstitialis* Oudemans, *G. lampei* Andersson, *G. leopoldi* Brongersma, *G. marginata* Boulenger, *G. membranacruralis* King and Horner and *G. papuana* Meyer). Only *G. baliola* and *G. membranacruralis* have been the subject of recent taxonomic work (King *et al.* 1989, King and Horner 1989), most nominal species from this region remain very poorly known and the validity and distribution of many is in need of review. For instance Bauer and Henle (1994) suggested that *G. leopoldi* may be synonymous with *G. mutilata* and Brongersma (1934) suggested that *G. lampei* may be synonymous with *G. papuana*. The types of *G. interstitialis* are also believed to have been lost (Daan and Hillenius 1966) making comparisons involving this species problematic.

Another very poorly known species is *Gehyra barea* Kopstein, a species barely mentioned in the literature since its description in 1926. This species is known only from the type series of four specimens, collected from two tiny volcanic islands, Teon (Tëun in original description) and Serua in the southern Banda Sea approximately halfway between Timor and Tanimbar, Maluku Province, Indonesia. *Gehyra barea* has not been compared with most other *Gehyra* recognised from the region and Bauer and Henle (1994) suggested