

## New *Carlia fusca* complex lizards (Reptilia: Squamata: Scincidae) from New Guinea, Papua-Indonesia

GEORGE R. ZUG<sup>1</sup> & ALLEN ALLISON<sup>2</sup>

<sup>1</sup>Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, District of Columbia 20560 USA.

<sup>2</sup>Department of Natural Sciences, Bernice P. Bishop Museum, Honolulu, Hawaii, 96817-2704 USA.

### Abstract

Recent rapid-assessment surveys in western New Guinea have provided well-documented voucher specimens that show greater speciation within the *Carlia fusca* complex in this area than indicated by the examination of older museum specimens. Variation in the morphometric and scalation traits of these new species does not differ greatly from other *fusca* complex species. This result was anticipated owing to the overall low level of variation in these morphological features in the *fusca* complex. Regionalization of distinct color patterns and abrupt shifts from one pattern to another indicate the existence of a distinct species along much of the southern coast from the Eilanden River basin to Etna Bay and another species from the northern coast of the Bomberai Peninsula. The variation and distribution of *fusca* complex species are examined for populations in the southern and western “mainland” Papua-Indonesia.

**Key words:** Squamata, Scincidae, *Carlia fusca*, Papua-Indonesia, New Guinea, geographic variation, new species

### Introduction

The island of New Guinea has a highly diverse herpetofauna with about 300 species of frogs, 200 lizards, and 86 nonmarine snakes (Allison, 1996 updated). These numbers, however, likely reflect only a portion of the actual species richness of the herpetofauna. New discoveries of strikingly different species occur with each focused field inventory of local New Guinean faunas (e.g., Allison and Kraus, 2003; Kraus and Allison, 2005). Similarly monographic studies of genera or species groups regularly double or triple the number of recognizable species. Zweifel (2000) examined diversity in the microhylid frog *Sphenophryne* sensu lato and found that this taxon actually consisted of four clades (=