

A Taxonomic Revision of the *Cyclodomorphus casuarinae* Complex (Squamata: Scincidae)

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ABSTRACT. Univariate and multivariate analyses of geographic variation in morphological characters indicate that *Cyclodomorphus casuarinae* consists of three geographically distinct taxa, which are recognised as species: one in Tasmania (*C. casuarinae*), a new species in the Australian Alps, and the third at lower altitudes in mainland Australia (*C. michaeli*). These three species are described, and data on habitat and reproduction provided for each.

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The she-oak skink, *Cyclodomorphus casuarinae*, is a poorly known, secretive and uncommonly collected species from south-eastern Australia and Tasmania. Although this large and spectacular species occurs in close proximity to two state capital cities (Sydney and Hobart), and has been known to science for over a century and a half, it has received almost no attention, either taxonomically or ecologically (Shea, 1988; Shine & Hutchinson, 1991). The species is considered to be rare and under threat in at least the Victorian part of its range (Ahern *et al.*, 1985; Cherry *et al.*, 1987; MacFarlane *et al.*, 1987).

With two exceptions (Peters, 1875; Wells & Wellington, 1984), no author has suggested that the taxon consists of other than a single monotypic species. However, until now, no author has examined representative series of specimens from throughout the range of the taxon. Indeed, there are only three redescriptions based on more than a single specimen: by Gray (1845)

based on five unlocalised Tasmanian specimens, by Boulenger (1887) based on 16 unlocalised Tasmanian specimens and a single Sydney specimen, and by Mitchell (1950) based on six unlocalised Tasmanian specimens. None of these accounts were able to consider geographic variation.

Although it has broad altitudinal limits, from sea level up to the Australian Alps (Loveridge, 1934), and has been reported from a number of different habitats, including dry sclerophyll forest, woodlands, heathlands, swamplands, tussock grasslands, coastal plains and grazing lands, sand dunes, river flats, valleys and ranges (Cogger, 1986; Wilson & Knowles, 1988; Ehmann, 1992), *C. casuarinae* has a fragmented distribution, with several geographic isolates (Rawlinson, 1974; Wells & Wellington, 1984, 1989; MacFarlane *et al.*, 1987; Mansergh & Bennett, 1989; Swan, 1990; Richards *et al.*, 1990; Bennett *et al.*, 1991; Ehmann, 1992). This distribution is unlike that of any other species of