



## Studies in Australian Tettigoniidae: *Ozphyllum*, a new genus of Phaneropterine katydids with comments on its relationships and ecology (Orthoptera: Tettigoniidae; Phaneropterinae)

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### ABSTRACT

A new genus of phaneropterine Tettigoniidae, *Ozphyllum* Rentz, Su, & Ueshima gen. nov., is described with two species known from rainforest and wallum habitats along the east coast of northern New South Wales and Queensland. The new genus appears to be most closely related to *Cosmophyllum* Blanchard from Chile. Detailed descriptions of the new species and notes on their ecology, cytology and song are presented. A table helps to separate the two species.

**Key words:** Australia, rainforest understorey vegetation, heathland vegetation, description, ecology, cytology

### INTRODUCTION

The Australian phaneropterine fauna is much larger than reflected in the present literature. One of the more interesting discoveries is a genus found along the east coast of Australia that appears to be related to *Cosmophyllum* Blanchard, a genus known only from Chile. The Australian example (Figs. 1, 2) is unlike any other Australian phaneropterine in that it is small, robust and the tegmina and pronotum are very pliable and soft. *Ozphyllum* gen. nov. is represented by two species, easily distinguished both by colour and the genitalic structures (Table 3). They are known from the east coast of Australia (Fig. 3). The more southern of the two species occurs in “wallum” habitats, that is, heathland vegetation growing in sandy, acidic soils on the coastal lowlands and as well as in rainforest understorey vegetation. The other is known from the rainforests in the Kuranda Range of northern Queensland and similar habitats to the south in the understorey vegetation where they perch on broad-leaved shrubs and small trees. Where they occur, both species seem to be common.

The Phaneropterinae is the largest subfamily of the Tettigoniidae. There are many undescribed genera in the Australian fauna. To properly place them requires a complete overhaul of the subfamily on a worldwide level. This would be a monumental undertaking requiring visits to collections around the world. At this point it seems the best approach is to present more evidence in the form of well illustrated descriptions of new taxa so that they may someday be incorporated into such a revision. It should be noted that Brunner’s work (1878) has much merit and should serve as a starting point for any such major revision. His “Groups” probably reflect the phylogeny of the subfamily and with some refining, they can still be used in future classifications. They were based on structures such as the armature of the fore coxa and the shape of the frontal fastigium, very important characters that denote relationships.