



## A revision of the southern African katydid genus *Griffiniana* Karny (Orthoptera: Tettigoniidae: Mecopodinae)

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### Abstract

The South African genus *Griffiniana* Karny of squamipterous to macropterous katydids (Tettigoniidae: Mecopodinae: Aprosphylini) is revised and a key to species is provided; *G. duplessisae* **sp. n.** from the Western Cape Province is described; acoustic behavior of *G. capensis* Karny, *G. duplessisae*, and *G. longipes* (Naskrecki) is described. The genus *Ewanella* Naskrecki is considered a junior synonym of *Griffiniana*, and *E. breviscula* Gorochov is synonymized with *G. longipes*.

**Key words:** Southern African katydids, Mecopodinae, Aprosphylini, *Griffiniana*

### Introduction

The genus *Griffiniana* Karny includes small, agile katydids known only from the western part of southern Africa. It was erected by Karny (1910) to accommodate a single species, *G. pedestris* Karny, 1910 from Namibia (“Kung-Buschmannland”). Naskrecki (1994) described an additional species from the Cape region of South Africa. He also described a new monotypic genus *Ewanella* Naskrecki, which is synonymized with *Griffiniana* in the present paper. Gorochov (2009) described *E. breviscula*, the status of which is discussed below.

*Griffiniana* was placed in the tribe Aprosphylini of the Mecopodinae by Naskrecki (1994), and its closest relatives are genera *Pseudosaga* Brancsik and *Aprosphyllus* Pictet. However, the phylogenetic position of the Aprosphylini in relation to other tribes of the Mecopodinae is unclear; preliminary phylogenetic analyses based on molecular (J. Mugleston, pers. comm.) as well as a combination of both morphological and molecular characters (Naskrecki et al., in prep.) indicate that Aprosphylini are not closely related to Mecopodini and other tribes of the subfamily. In the present paper *Griffiniana* is considered a tentative member of the Mecopodinae, pending further analysis.

All known species of *Griffiniana* are associated with xeric habitats of the Fynbos, Nama Karoo, Succulent Karoo, and Desert Biomes (biome classification after Mucina and Rutherford 2006.) They are nocturnal and spend the day either at the base of small, spiny bushes, or under rocks. Males begin calling late at dusk, and continue until approximately midnight. Their call is largely ultrasonic, albeit the low frequency component (below 20 kHz) can be heard from a short distance. In all observed cases males were calling from tips of terminal branches of small bushes, and ceased their acoustic activity at the slightest disturbance. All species of the genus are extremely agile, making their collecting difficult (*G. capensis* Naskrecki was recorded covering about 1.5 m, or approximately 63 times its body length, in a single jump.) Calling males were always found spaced by at least 3–4 m, and never on the same plant; females and individual nymphs were occasionally encountered on the same plant as the calling male. Adults of South African species of *Griffiniana* spp. begin to appear in December and can be found in large numbers until March. No individuals of the genus have been recorded between May and November, a period when the temperatures in the region drop to their annual minima. No oviposition has been observed in any of the species,