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***Zemacrosaldula*, a new genus of Saldidae (Hemiptera: Heteroptera) from New Zealand: taxonomy, geographic distribution, and biology**

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Abstract

Zemacrosaldula, new genus, is described with *Salda australis* White, 1876, as type species, resulting in the following new combination *Zemacrosaldula australis* (White, 1876). Three new species are described: *Zemacrosaldula kapekape* new species, *Z. whakarunga* new species, *Z. pangare* new species. A revision of the taxonomy of all taxa is presented. Species are keyed. Morphological descriptions are provided together with illustrations emphasising the most significant diagnostic features of external morphology and male genitalia. Information is given on synonymy, type specimens, material examined, geographic distribution and biology.

Key words: shore bugs, revision, systematics, biodiversity

Introduction

Relatively little is known about the shore bugs (Hemiptera: Saldidae) of New Zealand. Seven endemic species so far placed in the genus *Saldula* Van Duzee, 1914, have been described from this country (Larivière & Larochelle 2004; 2014). No taxonomic revision or identification key has ever been published for this fauna.

In addition to original species descriptions, the most useful contributions to the taxonomy and general understanding of the New Zealand Saldidae have been made by Cobben (1961; 1980a), Polhemus (1985a), and Schuh & Polhemus (2009). Cobben (1961) published descriptions for three species, doubling the number of New Zealand species assigned to *Saldula*. Cobben's descriptions were accompanied by useful illustrations but no identification key; an informative discussion on the composition of the fauna was however provided. Cobben's (1980a) revision of Hawaiian *Saldula* was also insightful especially in terms of dealing with "taxonomic complications" caused by character polymorphism (e.g., variation in hemelytral pigmentation or in degree of development of hindwings) which, as he put it, can hardly be resolved using single specimens or the small samples found in most museums. Polhemus (1985a) published the most comprehensive world overview of the family Saldidae, including a preliminary generic-level phylogeny. Consequently his work yielded the most exhaustive framework to consider regional faunas. Without the broad perspective offered by Polhemus (1985a) it would have been extremely difficult to undertake this New Zealand study mainly because the Southern Hemisphere fauna in general and the Australian fauna in particular, remain largely unresolved taxonomically. Schuh & Polhemus's (2009) revision and phylogenetic analysis of the South American and Andean genus *Pseudosaldula* contributed further useful contextual information for the New Zealand revision, especially with respect to morphological character analysis, saldid phylogeny, and austral biogeography.

The Australian Saldidae (three genera, ten species) are only partially known taxonomically and the most relevant literature on the subject (Rimes 1951; Cobben 1980b; Polhemus 1991; Cassis & Gross 1995) so far does not suggest a particularly close affinity with the New Zealand fauna.

The proposition that the New Zealand saldids described to date are not congeneric with *Saldula*, is not new (Polhemus 1985a–b; Lindsog & Polhemus 1992; Schuh & Polhemus 2009) but little could be done until now to revise this classification for lack of sufficient and well-documented material. Extensive fieldwork by the authors