



*Zootaxa* 3287: 1–262 (2012)  
www.mapress.com/zootaxa/

Copyright © 2012 · Magnolia Press

**Monograph**

ISSN 1175-5326 (print edition)

**ZOOTAXA**

ISSN 1175-5334 (online edition)

# ZOOTAXA

3287

## **A review of the genera of Australian cicadas (Hemiptera: Cicadoidea)**

M. S. MOULDS

*Entomology Dept, Australian Museum, 6 College Street, Sydney N.S.W. 2010*  
*E-mail: msmoulds@gmail.com*



Magnolia Press  
Auckland, New Zealand

*Accepted by J.P. Duffels: 31 Jan. 2012; published: 30 Apr. 2012*

M. S. MOULDS

**A review of the genera of Australian cicadas (Hemiptera: Cicadoidea)**

(*Zootaxa* 3287)

262 pp.; 30 cm.

30 Apr. 2012

ISBN 978-1-86977-889-7 (paperback)

ISBN 978-1-86977-890-3 (Online edition)

FIRST PUBLISHED IN 2012 BY

Magnolia Press

P.O. Box 41-383

Auckland 1346

New Zealand

e-mail: [zootaxa@mapress.com](mailto:zootaxa@mapress.com)

<http://www.mapress.com/zootaxa/>

© 2012 Magnolia Press

All rights reserved.

No part of this publication may be reproduced, stored, transmitted or disseminated, in any form, or by any means, without prior written permission from the publisher, to whom all requests to reproduce copyright material should be directed in writing.

This authorization does not extend to any other kind of copying, by any means, in any form, and for any purpose other than private research use.

ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

## TABLE OF CONTENTS

Abstract .....	5
Introduction .....	5
Historical review .....	6
Terminology .....	7
Materials and methods .....	13
Justification for new genera .....	14
Summary of classification for Australian Cicadoidea .....	21
Key to tribes of Australian Cicadinae .....	25
Key to the tribes of Australian Cicadettinae .....	26
Key to genera of Australian Cicadoidea .....	26
Generic reviews and diagnoses .....	46
Genus <i>Abricta</i> Stål .....	46
Genus <i>Adelia</i> gen. n. ....	46
Genus <i>Aleeta</i> Moulds .....	49
Genus <i>Anapsaltoda</i> Ashton .....	51
Genus <i>Arenopsaltria</i> Ashton .....	53
Genus <i>Arunta</i> Distant .....	55
Genus <i>Auscala</i> gen. n. ....	57
Genus <i>Baeturia</i> Stål .....	59
Genus <i>Birrima</i> Distant .....	59
Genus <i>Burbunga</i> Distant .....	62
Genus <i>Caliginopsalta</i> Ewart .....	64
Genus <i>Chelapsalta</i> gen. n. ....	67
Genus <i>Chlorocysta</i> Westwood .....	69
Genus <i>Chrysocicada</i> Boulard .....	71
Genus <i>Cicadetta</i> Kolenati .....	73
Genus <i>Clinata</i> gen. n. ....	76
Genus <i>Clinopsalta</i> gen. n. ....	78
Genus <i>Crotopsalta</i> Ewart .....	80
Genus <i>Cyclochila</i> Amyot and Serville .....	83
Genus <i>Cystopsaltria</i> Goding and Froggatt .....	84
Genus <i>Cystosoma</i> Westwood .....	86
Genus <i>Diceropyga</i> Stål .....	90
Genus <i>Diemeniana</i> Distant .....	92
Genus <i>Dipsopsalta</i> gen. n. ....	95
Genus <i>Drymopsalta</i> Ewart .....	98
Genus <i>Erempsalta</i> gen. n. ....	100
Genus <i>Ewartia</i> gen. n. ....	103
Genus <i>Froggattoides</i> Distant .....	105
Genus <i>Gagatopsalta</i> Ewart .....	108
Genus <i>Galanga</i> gen. n. ....	110
Genus <i>Gelidea</i> gen. n. ....	112
Genus <i>Glaucopsaltria</i> Goding and Froggatt .....	115
Genus <i>Graminitrigrina</i> Ewart and Marques .....	117
Genus <i>Gudanga</i> Distant .....	119
Genus <i>Guineapsaltria</i> de Boer .....	121
Genus <i>Gymnotympana</i> Stål .....	123
Genus <i>Heliopsalta</i> gen. n. ....	126
Genus <i>Henicopsaltria</i> Stål .....	128
Genus <i>Illyria</i> Moulds .....	130
Genus <i>Jassopsaltria</i> Ashton .....	133
Genus <i>Kikihia</i> Dugdale .....	135
Genus <i>Kobonga</i> Distant .....	137
Genus <i>Lembeja</i> Distant .....	139

Genus <i>Limnopsalta</i> gen. n. . . . .	141
Genus <i>Macrotristria</i> Stål . . . . .	144
Genus <i>Marteena</i> Moulds . . . . .	146
Genus <i>Melampsalta</i> Kolenati . . . . .	148
Genus <i>Mugadina</i> gen. n. . . . .	149
Genus <i>Myopsalta</i> gen. n. . . . .	151
Genus <i>Nanopsalta</i> gen. n. . . . .	154
Genus <i>Neopsaltoda</i> Distant . . . . .	156
Genus <i>Neopunia</i> gen. n. . . . .	158
Genus <i>Noongara</i> gen. n. . . . .	160
Genus <i>Notopsalta</i> Dugdale . . . . .	162
Genus <i>Owra</i> Ashton . . . . .	163
Genus <i>Oxypleura</i> Amyot and Serville . . . . .	165
Genus <i>Palapsalta</i> gen. n. . . . .	167
Genus <i>Paradina</i> gen. n. . . . .	169
Genus <i>Parnkalla</i> Distant . . . . .	172
Genus <i>Parnquila</i> gen. n. . . . .	174
Genus <i>Pauropsalta</i> Goding and Froggatt . . . . .	176
Genus <i>Physeema</i> gen. n. . . . .	179
Genus <i>Pictila</i> gen. n. . . . .	182
Genus <i>Pipilopsalta</i> Ewart . . . . .	184
Genus <i>Platypleura</i> Amyot and Serville . . . . .	186
Genus <i>Platypsalta</i> gen. n. . . . .	186
Genus <i>Plerapsalta</i> gen. n. . . . .	189
Genus <i>Psaltoda</i> Stål . . . . .	192
Genus <i>Punia</i> gen. n. . . . .	195
Genus <i>Pyropsalta</i> gen. n. . . . .	197
Genus <i>Quintilia</i> Stål . . . . .	199
Genus <i>Samaecicada</i> Popple and Emery . . . . .	199
Genus <i>Simona</i> gen. n. . . . .	202
Genus <i>Sylphoides</i> gen. n. . . . .	204
Genus <i>Talcopsaltria</i> Moulds . . . . .	206
Genus <i>Tamasa</i> Distant . . . . .	209
Genus <i>Taurella</i> gen. n. . . . .	211
Genus <i>Telmapsalta</i> gen. n. . . . .	214
Genus <i>Terepsalta</i> gen. n. . . . .	216
Genus <i>Tettigarcta</i> White . . . . .	219
Genus <i>Thaumastopsaltria</i> Kirkaldy . . . . .	222
Genus <i>Thopha</i> Amyot and Serville . . . . .	224
Genus <i>Toxala</i> gen. n. . . . .	226
Genus <i>Tryella</i> Moulds . . . . .	229
Genus <i>Urabunana</i> Distant . . . . .	231
Genus <i>Uradolichos</i> gen. n. . . . .	233
Genus <i>Venustria</i> Goding and Froggatt . . . . .	235
Genus <i>Yoyetta</i> gen. n. . . . .	237
Acknowledgments . . . . .	240
References . . . . .	241
Systematic index . . . . .	255

## ABSTRACT

The identities of all 242 described Australian Cicadoidea species (and their synonyms) have been confirmed, mostly by examination of types, and their generic status reviewed. Male genitalia of all but two Australian species have been examined and those of the type species of each genus are figured. The first key to genera incorporating both males and females is presented along with a brief history of Australian genera. A cladistic analysis incorporating 71 species from the tribe Cicadettini is also presented, the primary purpose of which was to identify generic groupings and their apomorphies.

The following 34 genera are described as new: *Adelia* gen. n., *Auscala* gen. n., *Chelapsalta* gen. n., *Clinopsalta* gen. n., *Clinata* gen. n., *Dipsopsalta* gen. n., *Erempsalta* gen. n., *Ewartia* gen. n., *Galanga* gen. n., *Gelidea* gen. n., *Heliopsalta* gen. n., *Limnopsalta* gen. n., *Mugadina* gen. n., *Myopsalta* gen. n., *Nanopsalta* gen. n., *Neopunia* gen. n., *Noongara* gen. n., *Palapsalta* gen. n., *Paradina* gen. n., *Parnquila* gen. n., *Physeema* gen. n., *Pictila* gen. n., *Platypsalta* gen. n., *Plerapsalta* gen. n., *Punia* gen. n., *Pyropsalta* gen. n., *Simona* gen. n., *Sylphoides* gen. n., *Taurella* gen. n., *Telmopsalta* gen. n., *Terepsalta* gen. n., *Toxala* gen. n., *Uradolichos* gen. n., *Yoyetta* gen. n.

Three genera, *Cicadetta* Kolenati, *Notopsalta* Dugdale, and *Quintilia* Stål, are removed from the fauna of Australia. Twelve species names are placed into junior synonymy and 74 new combinations are established. As a consequence of this review all 81 genera currently recognised as occurring in Australia are redefined using a common suite of characters identified as meaningful at generic level. To these have been added a further 35 characters when describing genera in the tribe Cicadettini in order to differentiate a large number of closely allied genera.

**Key words:** Burbungini, Chlorocystini, Cicadettinae, cicada, Cicadettini, Cicadidae, Cicadinae, Cicadini, Cryptotympanini, Cyclochilini, Jassopsaltriini, Key to cicada genera of Australia, Key to cicada tribes of Australia, Prasiini, Platyleurini, Talcopsaltriini, Tamasini, Taphurini, Tettigarctidae, Thophini, wax secretion

## INTRODUCTION

In an earlier work (Moulds 1990) I reviewed the Australian cicada fauna as then known. While preparing that text it became evident that generic definitions as a whole were inadequate and many species did not fit comfortably within the genera in which they were placed. In particular, many species included within *Cicadetta*, *Pauropsalta* and *Urabunana* (together encompassing nearly half the described Australian fauna at that time) showed obvious incompatibilities. Further, the identities of many described Australian species remained uncertain. These impediments have hindered the construction of a satisfactory key to the Australian genera. The most recent key available is that of Distant (1906d) but it is now outdated and largely unworkable for the Australian fauna.

The primary aim of this study has been to provide a generic overview for the described Australian species. The task of describing the plethora of new Australian species (and any new genera that they may require) is not addressed.

The generic descriptions provided here are intrinsically linked to the cladistic analysis of cicada family groups (Moulds 2005a). The data set of character attributes upon which that cladistic study was based has provided a basis for selecting characters meaningful at generic level for this generic review. Some additional characters uninformative as cladistic attributes but otherwise obvious features, i.e. the distribution of wing infuscations, colour, and the width of the head in relation to the thorax (the last a traditional character featuring often in generic and tribal descriptions) have been added to the descriptions to help characterize genera. Also, autapomorphies have been added. The descriptions treat characters in the same order, thus permitting direct comparisons between genera. Distinguishing features that characterize each genus are summarised after generic diagnoses.

Since the publication of the phylogenetic analysis of Australian genera by Moulds (2005a), six new genera from the tribe Cicadettini have been described (Ewart 2005a, Ewart & Marques 2008, Popple & Emery 2010), plus a new genus in a new monotypic tribe (Moulds 2008b). I now add a further 34 genera, the majority of which fall within the tribe Cicadettini. Many of these are represented by their type species in the phylogeny of Moulds (2005a).

A total of 81 Australian genera are now recognised, including the 34 described here as new. *Cicadetta* Kolenati, *Notopsalta* Dugdale, and *Quintilia* Stål are no longer considered to be represented in Australia. These generic changes have resulted in 74 new combinations and 12 species names falling as junior synonyms.

All generic descriptions are accompanied by figures of male genitalia (in most cases of the type species). For some genera additional figures included are wing venation, male opercula, head and body forms, and male and