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**A Revision of the Australian species of the genus *Melobasis* Laporte & Gory 1837
(Coleoptera: Buprestidae), Part 1 (Introductory material, key to species-groups
and keys to species of the *thoracica*, *pusilla*, *formosa*, *propinqua* & *gloriosa*
species-groups)**

BRIAN LEVEY

Department of Biodiversity & Systematic Biology, National Museum Wales, Cathays Park, Cardiff CF10 3NP, U.K.

E-mail: brian.levy@museumwales.ac.uk



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BRIAN LEVEY

A Revision of the Australian species of the genus *Melobasis* Laporte & Gory 1837 (Coleoptera: Buprestidae), Part 1 (Introductory material, key to species-groups and keys to species of the *thoracica*, *pusilla*, *formosa*, *propinqua* & *gloriosa* species-groups)

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Abstract

This is the first part of a revision of the Australian members of the genus *Melobasis* Laporte & Gory 1837. A synopsis of the biogeography, biology and relationships of *Melobasis* is given. A key to species-groups, and keys to the species of the *formosa*, *gloriosa*, *thoracica*, *propinqua* and *pusilla* species-groups are provided, together with descriptions and illustrations of all the species of these groups.

26 new species and subspecies are described: *M. acutula* sp. n., *M. amoena* sp. n., *M. angusta* sp. n., *M. brevis* sp. n., *M. brittoni* sp. n., *M. burnsi* sp. n., *M. dividua* sp. n., *M. duplexicolor* sp. n., *M. eximia* sp. n., *M. flavoaenea* sp. n., *M. flexa* sp. n., *M. goerlingi* sp. n., *M. hanloni* sp. n., *M. janae* sp. n., *M. kanguluorum* sp. n., *M. knowlesi* sp. n., *M. nudipectus* sp. n., *M. paucipunctata* sp. n., *M. powelli* sp. n., *M. propinqua depressa* ssp. n., *M. purpurilata* sp. n., *M. rectipilosa* sp. n., *M. regalis carnabyorum* ssp. n., *M. similis* sp. n., *M. simulata* sp. n., *M. specularis* sp. n.

The following **new synonymies** are proposed: *Briseis* Saunders 1871, *Diceropygus* Deyrolle 1864 and *Paramelobasis* Théry 1923 are synonymised with *Melobasis*.

Melobasis bimetallica Carter 1923 and *M. cuprina* Kerremans 1898 are synonymised with *M. g. gloriosa* (Laporte & Gory 1837); *M. goryi* Saunders 1871 and *M. metallifera* Saunders 1868 are synonymised *M. cuprifera* (Laporte & Gory 1837); *M. nitidiventris* Kerremans 1898 is synonymised with *M. thoracica* Blackburn 1887; *M. subconica* Carter 1923 is synonymised with *M. uniformis* Carter 1923; *M. terminata* Kerremans 1898 is synonymised with *M. inflammabilis* Thomson 1879. The following changes of status are proposed: *M. cruentata* Thomson 1879 is made a subspecies of *M. gloriosa* (Laporte & Gory 1837); *M. cuprifera* (Laporte & Gory 1837) is removed from synonymy with *M. propinqua* (Laporte & Gory 1837); *M. inflammabilis* Thomson 1879 is removed from synonymy with *M. vittata* Blackburn 1887; *M. verna* (Hope 1846) is raised to a subspecies of *M. propinqua* (Laporte & Gory 1837);

Key words: Coleoptera, Buprestidae, *Melobasis*, revision, new species, species group key, new synonyms, Australia

Introduction

This revision deals with all the Australian species currently assigned to the genus *Melobasis* Laporte & Gory 1837. The only previous revision of the group was by Carter (1923). Carter had limited material to examine, and many of the type specimens of earlier workers were not examined. For these reasons many valid species were treated as synonyms or synonymised with the wrong species. There have been a few more recent popular publications which include Australian *Melobasis*: Carnaby (1987); Cowie (2001).

In the course of this revision the type specimens of almost all the previously described Australian species were examined, only four not being found, namely *M. subfulgurans* Thomson 1879, *Buprestis splendida* Donovan 1805, *Buprestis chrysoptera* Boisduval 1835 (now considered to be a junior synonym of *Torresita cuprifera* (Kirby 1818) and *Buprestis viridinitens* Boisduval 1835. The identities of these species are dealt with in their respective species-group revisions. Many thousands of specimens have been studied from all the major Australian museums, the Natural History Museum, London, other European museums and many private collections.

Three species previously considered to be Australian are not included since the available evidence suggests that they are not Australian. *M. incerta* Kerremans, 1892 and *M. macleayi* Kerremans, 1892 are species from New Guinea which have been confused with closely related Australian species, and *M. fairmairei* Kerremans, 1903 is a species from New Caledonia, the holotype of which was incorrectly labelled as Australian.

M. cyanipennis Boheman 1858 which was considered a senior synonym of *M. azureipennis* Macleay 1872 is in fact a species of *Melobasina* Kerremans.

In this revision I have used a cladistic approach to assign species to species-groups.

214 Australian species and subspecies of *Melobasis* are presently known of which 115 species and subspecies are undescribed.