Contributions to the taxonomy of Australian Buprestidae (Coleoptera)  
Part I. New synonymy, combinations, and names

Charles L. Bellamy1 & Magnus Peterson2

1) Coleoptera Department, Transvaal Museum, P.O.Box 413, Pretoria 0001, South Africa  
e-mail: bellamy@tm.up.ac.za
2) Unit 35, 12 Wellington St., Mosman Park, Perth, W.A. 6012, Australia

Abstract. Buprestis lapidosa Macleay, 1827 is proposed as a new junior synonym of Dicerca crassicollis Leconte, 1857, syn. n.; Microcastalia Heller, 1891 (= Bubastodes Blackburn, 1892) is discussed, Ditriaena Waterhouse, 1911 and Goryola Cobos, 1975 are removed as subgenera of Microcastalia; Ditriaena is reinstated as a valid genus and Goryola as its subgenus. Castalia scintillans Carter, 1924 is transferred to Microcastalia, comb. n. The synonymy of Castelnaudina Obenberger, 1924 (= Castelnaudia Obenberger, 1923) under Neobubastes Blackburn, 1892 is confirmed and Eububastes Obenberger, 1928 is proposed as a new junior synonym of Neobubastes. Eububastes nickleri Obenberger, 1928 is transferred to Neobubastes with Melobasis pavo Carter, 1935 proposed as its new synonym. Neobubastes aureocincta (Blackburn, 1892) = var. scutalis Blackburn, 1892, syn. n. = Castelnaudina australasiae (Obenberger, 1923). A key to the species of Neobubastes is given. Buprestina Obenberger, 1923 is confirmed as distinct from Notobubastes Carter, 1924. Buprestodes Carter, 1924 is proposed as a new synonym of Lampetis Dejean, 1833 with Buprestodes variegata Carter, 1924 proposed as a new synonym of Lampetis fastuosa F., 1774; Buprestodes corrugatus Carter, 1924 cannot yet be placed in relationship to or synonymy with other Asian species of Lampetis. The subgenus Temognatha (Calotemognatha) Peterson, 1991 is elevated to generic rank. The synonymy of Pseudorhilara Thery, 1910 = Neororresita Obenberger, 1923 is confirmed and P. occidentis Obenberger, 1924 is elevated from subspecies of P. acharidi (Obenberger, 1923). Anthaxoschema Obenberger, 1923 is confirmed as distinct from Notographus Thomson, 1879. New synonyms in Notographus are N. yorkensis Obenberger, 1922 (= N. macleayi Obenberger, 1922 = N. deyrollei Obenberger, 1922 = N. thomsoni Obenberger, 1922). Neocuris auroimpressa Carter, 1924 is transferred to Maoraxia Obenberger, 1937 and proposed as the new senior synonym of M. littoralis Bellamy and Williams, 1985. A neotype is designated for Buprestis deplana Fabricius, 1801 and Synechocera tasmanica Thery, 1923 and S. longior Carter, 1928 are proposed as new junior synonyms. Discoderes torridus Blackburn, 1891 is proposed as a new junior synonym of Polyonychus mucidus Chevrolat, 1838. Cisseis (Hypocisseis) minuta Carter, 1924 is transferred to Sambus Deyrolle, 1864, the first record of this genus in Australia, and S. australis, nom. n., is proposed since S. minutus is preoccupied by Kerremans, 1896. Germarica abbreviata Carter, 1926 and G. elata Carter, 1926 are transferred to Helferella Cobos, 1957. Keys are presented to distinguish the species of Microcastalia Heller, 1891 and Neobubastes Blackburn, 1892. Lectotypes are designated for Castelnaudia australasiae Obenberger, 1923, Neororresita acharidi Obenberger, 1923, N. acharidi var. occidentis Obenberger, 1924, Notographus dreyrollei Obenberger, 1922, N. yorkensis Obenberger, 1922 and Anthaxia cupripes Macleay, 1872. A catalogue of the species of Pseudanila Thery, 1910 and a checklist of Notographus Thomson, 1879 are given. A number of infrasubspecific names are discussed with 30 varieties proposed as new synonyms under the respective nominate forms and 63 aberrations are declared unavailable.

Taxonomy, synonymy, nomenclature changes, status changes, new combinations, neotype designations, lectotype designations, Coleoptera, Buprestidae, Australia
Introduction

During a recent (1997) transcontinental journey from Perth to Sydney and back, the authors were fortunate to visit four Australian natural history museums and view their respective collections of jewel beetles (Coleoptera: Buprestidae) to capture data for the incipient Buprestidae section of the Zoological Catalogue of Australia which is under preparation by the senior author. Several new taxa and a small number of taxonomic problems were discovered during the visits and, as a first joint contribution, we will herein propose new or comment on existing syno- nyms, combinations and propose one replacement name.

In addition, the opportunity for one of us (CLB) to study the large collection of Obenberger in Prague, Czech Republic in late 1995, now permits several conclusions that had not been possible before, in the years of conflicting opinions and placements by Carter, Obenberger and Théry. Many of these conclusions again support the position stated earlier (Bellamy 1988a) that much of the earlier contention could have been avoided if each of these men had been more open in allowing the study of their types and had also made the effort to study the types of earlier authors.

Despite some reservations, the higher classification scheme we follow herein is essentially that proposed by Holynski (1993). While some proposals in that work require further study and others are specious, Holynski's work was really the first attempt at a holistic buprestid classification since that by Kerremans (1893), 100 years previous.

The collections from which material will be discussed are abbreviated as in the work of Arnett, et al. (1993), for brevity, as follows:

AMNH American Museum of Natural History, New York, New York;
AMSA Australian Museum, Sydney;
ANIC Australian National Insect Collection, Division of Entomology, CSIRO, Canberra;
MNHN Museum national d'Histoire naturelle, Paris;
MPCA M. Peterson collection, Perth, W. A.;
MVMA Museum of Victoria, Abbotsford, Melbourne;
NMPC Národní Muzeum, Praha, Czech Republic;
SAMA South Australian Museum, Adelaide;
TMSA Transvaal Museum, Pretoria, South Africa;
WAMA Western Australian Museum, Perth.

Other abbreviations are:

var. variety;
ab. aberration;
unvn. unavailable name.

The label data cited herein, for examined specimens or lectotype designations, with be listed verbatim with the abbreviations (p) indicated printed and (h) for handwritten labels.

In lieu of changes that are now required in the 4th Edition, ICZN (1999), the lectotype designations proposed herein are for the purpose of clarifying a more specific identity for each of six taxa which have been confused in the past. As the
label data in the syntypes of these six taxa are vague, or perhaps completely uninformative, and in more than one case differs from the published type locality information, it is thought that more stability will be possible by having designated lectotypes.

**Systematics**

*Buprestis lapidosa* Macleay, 1827

This taxon has been the cause of confusion for many years. Macleay’s (1827) description in the nominate genus *Buprestis* L., 1758, occurred prior to the onset of the great generic separation in Buprestidae began by Eschscholtz, 1829. Saunders (1868) listed *B. lapidosa* as “Species ignorant” and tentatively moved it to *Melobasis* Laporte et Gory, 1837. Gemminger & Harold (1869) listed *B. lapidosa* under *Cisseis* Gory et Laporte, 1839. Saunders (1871) removed it to a list of “species, the genera of which are doubtful.” Kerremans (1903a) kept it under *Cisseis*. Carter (1923), in his revision of *Cisseis*, suggested that *B. lapidosa* belonged to the genus *Dicerca*, Eschscholtz, 1829 and that it was likely an import; this opinion was repeated in his checklist (Carter 1929c). Obenberger, uncertain from the earlier opinions, listed it as “incertae sedis” twice, once (Obenberger 1930: 340) under *Dicerca* and again (Obenberger 1934: 857) under *Cisseis*. Having studied the unique type specimen permanently deposited in ANIC, we find by comparison and with the aid of the revision of North American *Dicerca* by Nelson (1975), that the holotype *B. lapidosa* is a small male of *Dicerca crassicollis* LeConte, 1857, a species found widely in western North America, from Alberta and British Columbia south to California. There is some resemblance to *D. herbstii* (Kiesenwetter, 1857) from Central Europe, but this species has modified mesotibiae, while in both *B. lapidosa* and *D. crassicollis*, the mesotibiae is simple. The male genitalia of *B. lapidosa* match the illustration given by Nelson, with this character state and that of the elytral tubercle configuration clearly separating *D. crassicollis* from its close relative *D. sexualis* Crotch, 1873. The new synonymy should read as follows:

*Dicerca crassicollis* LeConte, 1857: 45; Obenberger, 1930: 327; Nelson, 1975: 106.

*Buprestis lapidosa* Macleay, 1827: 197; Saunders, 1868: 64; 1871: 137; Carter, 1923: 163;

Obenberger, 1930: 340 (*Dicerca*, incertae sedis); 1934: 857 (*Cisseis*, incertae sedis); **syn. n.**

**Genus Microcastalia** Heller, 1891


**Type species.** *Castalia globithorax* Thomson, 1878 (original designation).


**Type species.** *Bubastodes sulcicollis* Blackburn (original monotypy).

Remarks. A great deal of confusion was created by Cobos (1978) when he suggested that Microcastalia was closely related to the Neotropical genus Ditriaena Waterhouse, 1911. While similar in appearance and sharing a few features that most likely relate these taxa no lower than at the tribal level, such a relationship as currently defined by three subgenera (Microcastalia s. str., Ditriaena and Goryola Cobos, 1975) is contraindicated by the lack of similarity in general facies, the lack of the truncate projection of the anal sternum in the Neotropical species (Ditriaena and Goryola), and very different antennal morphologies, especially in the structure and location of the sensory pores and sensillae (M. G. Volkovitsh, pers. comm.). Such a classification by Cobos prompted Matthews (1985) to suggest that M. globithorax might actually have been introduced to the Australian fauna. To support our proposal to again separate these taxa, we note that there are currently no other situations within buprestine classifications where common genera are shared between the Australian and Neotropical regions. There are, however, repeated cases of related genera within some buprestine subtribes between these two, once connected, faunal regions, e.g. Nascionina Holynski (1988) for the Australian Nascio Laporte et Gory, 1837 and Nascioides Kerremans, 1903 and the Chilean Pterobothris Fairmaire & Germain, 1858; Curidina Holynski (1988) for the Australian Curis Laporte & Gory, 1838 and Chilean Ctenoderus Germain, 1856; and the genera of Stigmoderina Lacordaire: three genera from the Neotropical region and five genera from the Australasian region (see Gardner 1989). The only cases of a generic overlap between these regions is found in the two large cosmopolitan buprestid genera Agrilus Curtis, 1825 and Chrysobothris Eschscholtz, 1829.

*Microcastalia globithorax* (Thomson, 1878)

(Fig. 1)

*Castalia globithorax* Thomson, 1878: 46; Kerremans, 1892: 133.


*Bubastodes sulcicollis* Blackburn, 1892b: 212; Kerremans, 1902: 23; 1905: 421; Obenberger, 1926: 38; Carter, 1929c: 281.

Specimens examined. Holotype of *Bubastodes sulcicollis* (BMNH): 4329 (h, red) / Type (h) / Blackburn coll. 1910-236 (p) / Bubastodes sulcicollis Blackb. (h) / Microcastalia globithorax Thoms. (h) Théry det. (p); 1 ex. (ANIC): Nova Holland / Frey Coll. 1905.100.; 1 ex. (TMSA): Australia; 4 ex. (AMNH, TMSA): 865, S. Australia; several examples (NMPC): without label data recorded.

Remarks. This species was last discussed briefly by Cobos (1978) and Matthews (1985). It appears to be rather rare in collections and enigmatic in nature and with no published records on plant associations or biology that we are aware of. We are quite certain that the number of specimens in various collections, all from Australia and nothing else remotely similar known from any collection from any other part of the world, indicates that this is a truly indigenous taxon and its relationship to the species of *Notobubastes* Carter, 1924 perhaps the sister-group, further corroborates this opinion.
Microcastalia scintillans (Carter, 1924) comb. n.

*Castalia scintillans* Carter, 1924b: 523; Obenberger, 1926: 40; 1928: 54.
*Polycestella scintillans*, Carter, 1940: 381.

Remarks. An examination of the holotype and single paratype from MVMA show why confusion with several polycestine genera has occurred in the past. However, this species comes nearest to *M. globithorax* and can be separated as indicated in the following couplet.

1. Size larger; frontovertex somewhat narrowed between eyes; pronotum convex, coarsely punctate, lateral margins nearly evenly arcuate from anterior to posterior angles; elytra coarsely punctate between costae, apices each trispinose; antennameres triangularly serrate from 4 ........................................ M. scintillans (Carter)

- Size generally smaller; frontovertex wider between eyes; pronotum flattened discally, convex laterally, more finely punctate, lateral margins more strongly arcuate medially; elytra more finely punctate between costae, apices each with trilobed condition, the two distal lobes spinose and the median lobe rounded; antennameres triangularly serrate from 5, 4 subtriangular ........................................ M. globithorax (Thomson)

Genus Neobubastes Blackburn, 1892


Type species. *Neobubastes aureocincta* Blackburn, 1892 (original monotypy).

*Castelnaudia* Obenberger, 1923a: 14 (name preoccupied by *Castelnaudia* Tschitschérine, 1891, Carabidae).

Type species. *Castelnaudia australasiae* Obenberger, 1923 (original designation).

*Castelnaudina* Obenberger, 1924a: 17 (nomen novum for *Castelnaudia* Obenberger); Carter, 1928: 270; 1929c: 282; Obenberger, 1930: 419; Carter, 1940: 382; Bellamy, 1985: 418; 1986: 594.


Type species. *Eububastes nickerli* Obenberger, 1928 (original designation).

Remarks. After again pointing out to Obenberger that his genus name *Castelnaudia* (Obenberger 1923a) was preoccupied, which had already been noted and corrected (Obenberger 1924a), Carter (1928, 1929c, 1940) argued that *Castelnaudina australasiae* (Obenberger 1924a) was a synonym of *Neobubastes aureocincta* Blackburn, 1892. Obenberger (1930) apparently ignored this opinion by listing *Castelnaudina* many pages distant from *Neobubastes* in the catalogue. Bellamy (1985, 1986) followed the last published opinion (Carter 1940) and recognized this synonymy. Recent study of the type material of both of these species convinces us that Carter’s opinion is correct.

There is still a general confusion amongst contemporary workers about the validity and membership of the higher taxon Bubastini Obenberger, 1920. Holyński (1993) reduced this to the subtribal level and synonymized under it Thomassetiina Bellamy, 1987 and Philanthaxiina Holyński, 1988 as well as the North American *Chrysophana* LeConte, 1860. Some of these proposals were refuted by Bellamy (1996). The more
recent study by Bílý & Volkovitsh (1996) discussed the Australian members of Bubastini in comparison to the Palaeartic Paratassa Marseul, 1882 and they concluded that the Australian genera are likely unrelated to the African genera that have been placed in Bubastini (e.g. Bubastoides argodi Kerremans, 1909 from Somalia and Strandiola paradoxa Obenberger, 1920 from Mozambique). It is apparent from this current study of possible relationships that Neobubastes is possibly not a member of Bubastini, but until more complete higher level phylogenetic hypotheses are tested, we will not propose a transfer. The three species of Neobubastes are most similar to the two species of Microcastalia (see below). The general structure of these species shows similarity in the shapes and orientation of the head, pronotum, elytra, thoracic and abdominal sterna and legs. The shape of the epistome differs only with that of M. globithorax being more narrowly emarginate. The position of antennal cavities, shape of the frontovertex and parallel inner margins of the eyes are nearly the same. The shape of the pronotum is very similar, but the species of Neobubastes, especially N. aureocincta, have the lateral marginal carinae entire and visible from above, while the marginal carina of M. globithorax is not visible from above and only extends part way from the base. The elytra have a similar composition of punctate striae and feebly elevated costae, but M. globithorax has these costae only feebly indicated, perhaps partially atrophied, on the sutural half of the disk, while the costate condition of the Neobubastes elytra is very regular and entire across the disk. The configuration of the epipleura is similar; the elytral margins and apices differ with one, M. globithorax, being nearly entire and with the apices feebly bilobed while N. aureocincta and N. flavovitta Carter, 1922 have the margin finely serrate and the apices attenuate. The structure of the prosternum and especially the prosternal process is very similar as is the configuration of the sternal cavity being formed mostly by the mesosternal lobes. All species have the same truncately produced apex of the last visible abdominal sternum.

Holyński (1993) returned Microcastalia to the Polycestina Lacordaire, 1857, a questionable decision that we cannot support (see following discussion) as Microcastalia and Neobubastes seem close enough in so many aspects that they should belong to the same higher taxon. Some similarity is also apparent from comparisons of Neobubrestis frenchi (Blackburn, 1892) and Balthasarella melandryoides Obenberger, 1958, suggesting the current placement of several Australian taxa is likely wrong and that there may well be a distinct Australian lineage more ancient and independent of extracontinental affinity as suggested by Bílý & Volkovitsh (1996 & pers. comm.).

An examination of the type species of Eububastes Obenberger, E. nickerli Obenberger, 1928 and the type of Melobasis pavo Carter, 1935 from the NMPC and AMSA respectively, convinces us that these taxa are conspecific and that they should be transferred to Neobubastes. According to M. G. Volkovitsh, Zoological Institute, Russian Academy of Science, St. Petersburg (in litt.), the antennal structures of Eububastes nickerli and Neobubastes aureocincta are virtually identical, yet distinct from both Bubastes Laporte & Gory, 1836 and Euryspilus Lacordaire, 1857. The species of Neobubastes can be separated in the following key.
Key to the species of *Neobubastes*

1 Underside sparsely clothed with fine, thin, grey or off-white hair-like setae; head and pronotum black with dark cupreous reflection, pronotum with slight reddish reflection in anterior half, slight bluish reflection in posterior half; elytra with disk dark but with bluish reflection, entire marginal portion with dark red colour strongly reflected .............................. *N. aureocincta* Blackburn

- Underside more densely clothed with more stout, coarse, white setae; coloration otherwise 2

2 Head and pronotum mostly iridescent cupreous; each elytron with one large yellow or testaceous vitta on medial half; male with underside cupreous, female with underside greenish .............................. *N. flavovittata* Carter

- Head and pronotum deep blue-green to purple, elytra entirely blue-green to purple; male with underside cupreous, female with underside shining green .............................. *N. nickerli* (Obenberger)

*Neobubastes aureocincta* Blackburn, 1892

(Fig. 2)


*Neobubastes aureocincta* var. *scutalis* Blackburn, 1892b: 213; Carter, 1929c: 282; Obenberger, 1930: 303; syn. n.


Remarks. According to Horn & Kahle (1937), the collection of Blackburn was divided: the Coleoptera types were transferred to The Natural History Museum, London in 1909, and the remainder of the collection split between the South Australian Museum, Adelaide and the collection of Charles French, now housed in NMVA, Melbourne. Shortly after Blackburn's death, Lea (1912) presented a short biography, a list of Blackburn's publications and an accounting of the disposition of the Blackburn collection. According to Lea's notes, the type of the nominate form “is, or should be,” in Melbourne, while the type of var. *scutalis* is in the British Museum. Lea also noted that “unfortunately, in many instances, Mr. French removed Mr.
Blackburn’s labels, substituting some in his own writing for the sake of uniformity. He often, however, attached a special ‘type’ label to the specimens.” Horn & Kahle (1937) also presented an example of the typical Blackburn determination label, present on the type of *N. aureocincta* var. *seutalis*. The type of the nominotypical form has not been located. Specimens were borrowed from ANIC, MVMA, SAMA and TNHM but none bear the proper locality data, nor Blackburn determination labels. Two specimens from NVMA are labelled as syntypes, but the locality data differ to that published with the original descriptions (Blackburn 1892b). Therefore, we will leave things as they are for now and await the discovery of the type or the eventual designation of an lectotype.

Little detail can be added to the distribution of *N. aureocincta* from the incorporation of *Castelnaudina australasiae* since the labels on the type series say nothing more than “Queensland”. According to Dr. S. Bily, NMPC, our colleague and custodian of the Obenberger collection, a great many of the Australian specimens in this collection were obtained by Obenberger from Australian collectors, some Czech travellers, who paid little attention to locality information and thus much of this material is now labelled with the same vague label affixed to the specimens by Obenberger.

There are aspects of sexual dimorphism and dichromatism present in the examined specimens that might have given some reason for the multiple descriptions. The males are generally smaller, with the pronotum widest in the middle and with the lateral margins nearly evenly arcuate, while the underside is often more chromatic, with either the femora and tibiae, or the legs along with the abdominal sterna with blue-green reflections to strongly iridescent green. The females are slightly to much larger, have the pronotum widest in the anterior half, with the margins nearly straight from the posterior margin to the arcuate condition of the anterior third and the underside, while the surface is nitid, the coloration is more somber, black with only an aeneous reflection, except laterally on the prosternum.

**Neobubastes flavovittata** Carter, 1922

(Fig. 3)


*Specimens examined*. All from Western Australia: 1 ♂ (WAMA): Dedari, 7 mile E of No. 8 pump, 20.i.1958, R. P. McMillan, on *Casuarina campestris*; 1 ♂ (WAMA): 48-455, Dedari, leg. A. D.; 1 ♂ (TMSA): Dedari, 2.ii.1976, M. Peterson; 1 ♀ (WAMA): no data, this specimen has the head and thorax of a *Melobasis* sp. glued to the abdomen of *N. flavovittata*; 1 ♂ (MPCA): 13.6 km NNE Paynes Find, 29.09W, 117.42E, 16.i.1989, M. Peterson, on *Thryptomene / Baeckia* leaves near granite outcrop with *Acacia*.

*Remarks*. This species is reminiscent in general appearance to vittate species of *Castiarina* Gory et Laporte, 1838. Sexual dimorphism cannot be discussed because only one female specimen was examined and that lacks the head and thorax. Sexual dichromatism is present with the males having the underside cupreous, while the single female is cupreous on the thoracic and basal 2 abdominal sterna and iridescent green on the last 3 visible abdominal sterna.
Neobubastes nickerli (Obenberger, 1928) comb. n.


Melobasis pavo Carter, 1935: 179; syn. n.


Remarks. A direct comparison of the types of the two taxa, both male, confirms this new synonymy. The very different coloration of this species disguises the otherwise gross similarity of morphological features which confirms our transfer to Neobubastes. Both sexual dimorphism and dichromatism of this species are present, with the males being smaller, the pronotum with the lateral margins widest in the middle and gradually narrowing anteriad, the dorsal colour is generally blue-green and the underside is generally strongly red cupreous. The females are larger, the pronotum has the lateral margins straight in the posterior half and arcuate in the anterior half, the dorsal colour is blue-green to purple and the underside is generally green.

The second description of this species as Melobasis pavo by Carter (1935) is surprising since he had earlier described N. flavovittata and had earlier presented the only revision of the large genus Melobasis (Carter 1923a).

Genus Notobubastes Carter, 1924 vs. Buprestina Obenberger, 1923

Remarks. Obenberger (1923a) described the genus Buprestina for a new species, B. prosternalis Obenberger, 1923 and compared it to Buprestis haemorrhoidalis Herbst, 1789 from Europe. Carter (1924a) described Notobubastes for three new species: N. occidentalis Carter, 1924, N. orientalis Carter, 1924 and N. aurosulcata Carter, 1924, type species: N. occidentalis by subsequent designation of Bellamy (1998). Later, Carter (1924b) described a fourth species, N. costatus, Carter, 1924; this situation was briefly reviewed by Obenberger (1928) with the same listings repeated later (Obenberger 1930). Carter (1928) commented that B. prosternalis, from the description, seemed to him to be similar to Notobubastes and that there was a contradiction in Obenberger’s descriptions of the genus and species. Indeed, the description of the genus states that the prosternum is “densement ponctué” while the species description says “prosternum sans ponctuation, lisse”. Thus unsure of placement or if synonymies were warranted, Carter (1929c) listed these two genera consecutively. The two genera were both listed as valid by Bellamy (1985, 1986).

An examination of the holotype of B. prosternalis revealed that Carter’s confusion is understandable, since the prosternum has the surface densely punctate except
for median process, which is smooth. A comparison of this taxon and specimens of Notobubastes in the Prague collection convinces us that both genera should remain valid, and that they are not even particularly close. Holyński (1988) suggested removing Notobubastes from the Bubastina Obenberger and proposed instead to consider it as a subgenus of the large, nearly cosmopolitan (except Australasia) genus Psiloptera Serville in Dejean, 1833. This appears to be a valid suggestion but should be considered in light of the changes to Psiloptera proposed more recently by Kurosawa (1993) and suggestions herein and recently by Bílý & Volkovitsh (1996) of a strictly Australian lineage of buprestids that precludes extra-continental affinities and tribal level combinations.

Genus Lampetis Dejean, 1833

Lampetis Dejean, 1833: 76; 1836: 86; Mannerheim, 1837: 39; Spinola, 1837: 113; Lacordaire, 1857: 27

Type species. Buprestis bioclata Olivier, 1790 (subsequent designation by Lacordaire 1857).

Damarsila Auctorum; Kerremans, 1893: 106; 1903a: 95; 1910: 193; Bellamy, 1985: 416;

Leptia Dejean, 1833: 78 (part); 1836: 89.

Type species. None designated.


Type species. Buprestodes corruscens Carter, 1924 (subsequent designation by Bellamy 1998).

Remarks. Carter (1924a) erected the genus Buprestodes for two new species, each from but a single specimen. Neither species was designated as the type species; this has subsequently been accomplished by Bellamy (1998). Upon the examination of the two holotypes in the Australian Museum, it was immediately clear that these species are both probably introduced, likely only once, and both are members of the widespread genus Lampetis Dejean, as recently defined by Kurosawa (1993). Therefore, the generic synonymy of Lampetis is now as presented above.

Without comparing the unique specimens of the two species of Buprestodes to many types housed in mostly European collections, it is not possible now to confirm both specific synonyms. The type of B. corruscens Carter (AMSA K67308) is likely conspecific with one of the several species of Lampetis from the Indian subcontinent. The recent paper and key to the Asian species of Lampetis by Akiyama & Ohmomo (1994) excludes synonymy with any of the species discussed therein. The earlier key to the genus Psiloptera by Kerremans (1910) indicates a possible relationship to a member of the L. cupreosplendens (Saunders, 1871) species group. The single specimen is labelled from Doverin, W.A. and likely represents a one-time introduction.

However, the key of Akiyama & Ohmomo (1994) does confirm a first impression of the conspecificity of B. variegata Carter, 1924 (AMSA K67309) with Lampetis fastuosa F., 1774 syn. n. The unique specimen is labelled from Kellerberrin, W.A. and also was probably introduced but once.
Genus Calotemognatha Peterson, 1991 stat. n.

Remarks. A re-evaluation of the characters used by Peterson (1991b), particularly the autapomorphy of a complex bifurcate, bicornute structure on the dorsal valve of the ovipositor, to define and diagnose the subgenus Temognatha (Calotemognatha) indicates that they are of such significance within the tribe Stigmoderini to warrant elevation of Calotemognatha to full generic rank.

The removal of those characters and character states, found only in Calotemognatha, from consideration in the phenetic definition of Temognatha Solier, 1833 by Gardner (1989) potentially provides the opportunity to identify one or more apomorphic character states by which to cladistically define the latter genus.

The elevation of Calotemognatha to generic level is considered to be the first step towards resolving a more robust scheme of phylogenetic relationships, compared to that of Gardner (1989), within the Australian component of genera constituting the tribe Stigmoderini.

Genus Pseudanilara Théry, 1910 vs. Neotorresita Obenberger, 1923

No situation created more controversy between Carter and Obenberger than did the two genera Pseudanilara Théry, 1910 and Neotorresita Obenberger, 1923. Pseudanilara was described by Théry (1910) for a new species: P. roberti Théry, 1910; this species has subsequently been treated as the junior synonym of Anthaxia purpureicollis Macleay, 1872 by Carter (1929c) and by Obenberger (1930). Obenberger (1923a) described Neotorresita Obenberger, 1923 for a new species, N. achardi Obenberger, 1923, from Brisbane; it was compared to the Holarctic genus Melanophila Eschscholtz, 1829. Soon thereafter Carter (1924b) described P. occidentalis Carter, 1924 and then commented that Obenberger’s species belonged instead to Pseudanilara and that the species P. achardi was the sixth name for the common species P. cupripes (Macleay, 1872) (see synonymy below). Obenberger (1924b) described a variety occidentis Obenberger, 1924 for N. archardi from Western Australia. Carter (1925) restated his opinion of the generic and specific synonymy and indicated that occidentalis and occidentis were apparently not the same, despite the unfortunately similar names. Carter (1926) again restated the synonymy of P. cupripes and P. purpureicollis. Obenberger (1928) offered a substantial rebuttal against Carter’s opinion by listing a number of differences between Neotorresita and Pseudanilara, substantiating his opinion by a tabulation of differences from the original description of Pseudanilara by Théry and repeating what he thought were the contrasting diagnostic features of Neotorresita. In the same work, Obenberger also transferred P. cupripes and all of its synonyms listed by Carter (1924b) as valid species into Neotorresita and also included P. piliventris Carter, 1926; also listed were two new species described in that same paper: N. kerremansi Obenberger, 1928 and N. microphaenops Obenberger, 1928. Thereafter, Obenberger (1928) listed four species as belonging to Pseudanilara:
Contributions to the taxonomy of Australian Buprestidae I (Coleoptera)

P. purpureicollis with var. nigra Macleay, 1872 and synonym P. roberi Théry, 1910; P. bicolor Carter, 1924 suggesting this belonged to new genus “I”; P. occidentalis Carter, 1924, belonging to new genus “II”; and P. dubia Carter, 1926, probably, he speculated, needing to be transferred to Anthaxoschema Obenberger, 1923.

Carter (1929a) replied and argued that the genera were synonyms and that Obenberger’s (1928) arguments had included contradictions to his own original description of Neotorresita. Carter (1929c) presented the following synonymy, which we see as essentially unchanged by any subsequent opinion presented by Obenberger. Later Obenberger (1930) listed these two genera some 128 pages apart in his catalogue, essentially with the same species members as presented earlier (1928) except with the placement of P. piliventris preceded by a question mark. In the last of the exchanges between the two authors, Carter (1940) regretted Obenberger’s final obfuscation and maintained his position on this generic synonymy. Bellamy (1985, 1986) accepted the generic synonymy.

We have studied types of the following taxa N. achardi, var. occidentis, N. cupripes, N. kerremansi, N. microphaenops, N. purpureicollis and N. roberi and find that all are best placed within a single genus, Pseudanilara. Quite surprising with the loan of the types of P. cupripes came the realization that Carter was wrong about the synonymy of that species and N. achardi; these are two very distinct species. Unfortunately, we have not been able to examine the other species listed as synonyms of P. cupripes by Carter (1940), Neocuris dilaticollis Blackburn, 1892, Melobasis laticeps Kerremans, 1898 and Melanophila australiasiae Kerremans 1903. Furthermore, the variety occidentis is substantially different morphologically from its nominate form and also reportedly comes from Western Australia. We propose to recognize this taxon as a valid species. Therefore, we see the synonymy and generic membership of Pseudanilara as follows.

**Genus Pseudanilara Théry, 1910**

Type species. *Pseudanilara roberti* Théry, 1910 (original monotypy).

Type species. *Neotorresita achardi* Obenberger, 1923 (original designation).

**Checklist of Pseudanilara Théry, 1910**

*bicolor* Carter, 1924b: 524; Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 553.
**Folia Heyrovskyana, vol. 8(2): 73-100, 2000**


**syn. dilaticollis** (Blackburn, 1892a): 42 (Neocuris); Kerremans, 1903a: 176; Obenberger, 1915: 77; 1917: 178; 1922: 122 (Anilara); Carter, 1923a: 104; 1924b: 526; 1926: 51; 1928: 279; Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 533.

**syn. laticeps** (Kerremans, 1898): 126 (Melobasis); Carter, 1923a: 104; 1924b: 526; 1926: 51; 1928: 279; Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 533.

**syn. australasiae** (Kerremans, 1903b): 59 (Melanophila); Carter, 1923a: 104; 1924b: 526; 1926: 51; 1928: 279; Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 533.

**dubia** Carter, 1926: 57; Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 425; **comb. n.**

**microphaenops** (Obenberger, 1928): 205; Carter, 1929a: 183; 1929c: 288; Obenberger, 1930: 425; 1931: 80; **comb. n.**

**occidentalis** Carter, 1924b: 525; Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 533.

**occidentis** (Obenberger, 1924b): 69 (Neotorresita, var. achardi); Carter, 1925: 232; Obenberger, 1928: 59 (ssp.); Carter, 1929c: 288; Obenberger, 1930: 425; Carter, 1931: 108; **stat. n.**

**piliventris** Carter, 1926: 58; Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 425.

**pilosa** (Carter, 1912): 519 (Neocuris); 1928: 279 (Pseudanilara); Obenberger, 1928: 59; Carter, 1929c: 288; Obenberger, 1930: 533.

**purpureicollis** (Macleay, 1872): 242 (Anthaxia); Kerremans, 1892: 126; 1903a: 177; Obenberger, 1915: 77; 1917: 178; Carter, 1926: 51; Obenberger, 1928: 59; Carter, 1929a: 183; 1929c: 288; Obenberger, 1930: 533; 1931: 80; **comb. n.**

**Anthaxia cupripes** Macleay, 1872 (Fig. 4)

Two specimens, both labelled “holotype” were received from AMSA. The male specimen is labelled: circular orange label

I K32236 (h)

I Anthaxia cupripes Macleay Gayndah (h)

I LECTOTYPE

I BELLAMY & PETERSON (p, red); the female paralectotype bears the same first two labels and now has a label reading PARALECTOTYPE Anthaxia cupripes Macleay Q BELLAMY & PETERSON (p, red)

**Neotorresita achardi** Obenberger, 1923 (Fig. 5)

From two syntypes in NMPC, lectotype $, Brisbane, Austr (h) / Typus (p, red) / Neotorresita achardi m. Type (h), Det. Dr. Obenberger (p) / Mus. Nat. Prague Inv. (p) 22047 (h, orange) / LECTOTYPE Neotorresita achardi Obenb. BELLAMY & PETERSON (p, red); the female paralecotype bears the same first two labels and now has a label reading PARALECTOTYPE Anthaxia cupripes Macleay $ BELLAMY & PETERSON (p, red)

**Neotorresita achardi** ssp. occidentis Obenberger, 1924

From two syntypes in NMPC, lectotype $, West. Austral. (H) / Typus (p, red) / N. Achardi ssp. occidentalis m. Type (h), Det. Dr. Obenberger / Mus. Nat. Prague Inv. (p) 22050 (h, orange) / LECTO-
TYPE Neotorresita achardi ssp. occidentis Obenberger & Bellamy & Peterson (p, red); 1 ♀ paratype: same data and labels except PARATYPE, Mus. Nat. Praga Inv. 22049; this subspecies, with no specific locality recorded or known, is specifically distinct from the nominate form and herein elevated to specific status. The lectotype is larger than the lectotype of N. achardi, the pronotum is completely red-coppery, the elytra are wider in proportion to length and to the pronotum than in N. achardi, with the disk more somber colored and the margin from about the anterior third and then entirely to apex the same colour as the pronotum; the paralectotype is smaller than the lectotype of N. achardi and completely somber colored but with the same body proportions as the lectotype of N. occidentis.

Genus Anthaxoschema Obenberger, 1923 vs. Notographus Thomson, 1879

Remarks. The genus Notographus was described by Thomson (1879) for Anthaxia sulcipennis Macleay, 1872 while Obenberger (1923a) erected Anthaxoschema for a new species, A. terraereginae Obenberger, 1923. Carter (1928) first proposed the generic synonymy and questioned the possibility that A. terraereginae was the same as N. yorkensis Obenberger, 1922 and these same synonymies were listed by Carter (1929c). Obenberger (1930) listed Anthaxoschema separately, between Notographus and the Neotropical Tetragonoschema Thomson, 1857. Carter (1940) again listed the generic synonymy, but with a question mark and also questioned the synonymy of A. terraereginae, this time under N. thomsoni Obenberger, 1922 with that taxon listed as possibly the same as N. uniformis Macleay, 1888. Théry (1945), never an ardent supporter of Obenberger, apparently accepted the validity of Anthaxoschema by describing a second species, A. carteri Théry, 1945 and presented diagnostic differences between this genus and Tetragonoschema. Bellamy (1985, 1986) considered Anthaxoschema valid.

From the recent study in Prague, we find that Anthaxoschema is distinct from, at least, the Obenberger species of Notographus by the following character states: 1) eyes widely separated, not narrowing on dorsum; 2) pronotum not strongly constricted at base; 3) elytra without differentially sculptured areas. Finally, A. terraereginae bears no resemblance to Carter’s presumption of N. yorkensis.

Genus Notographus Thomson, 1879

Type species: Anthaxia sulcipennis Macleay, 1872 (original monotypy).

Remarks. Obenberger (1922) first revised Notographus and added four new species: N. deyrollei Obenberger, 1922; N. yorkensis Obenberger, 1922; N. thomsoni Obenberger, 1922; and N. macleayi Obenberger, 1922. Carter (1929c) stated that “Obenberger’s species are only scantily indicated by a table”, i.e. the descriptions are limited to the diagnostic features used in a key to the species. They then listed N. thomsoni under N. uniformis (Macleay, 1888).
From study of the types of the four Obenberger taxa, no differences warranting even subspecific separation were found. Therefore, we propose that the following new synonymies; the eventual study of *N. yorkensis* in comparison to the type(s) of *N. uniformis* may indicate the need for further action. *Notographus yorkensis* has been selected as the senior synonym because it was first described in the descriptive couplets following *N. sulcipennis* and *N. hieroglyphicus* (Macleay, 1872). Another problem with these specimens is that the descriptions state “Westaustral- lien” as the locality for *N. macleayi* and *N. thomsoni* but the labels simply read “Australia”. For *N. deyrollei* the description says “Queensland, Cape York” but labels only read “Queensland”. Considering the new synonymy below and the fact that all of the specimens studied of the four Obenberger specimens, we can only assume that the possibility exists that all specimens are from the same place, but we cannot know what this locality is.

**Checklist of Notographus Thomson, 1879**

*N. sulcipennis* (Macleay, 1872): 244.
*N. uniformis* (Macleay, 1888): 1227.
*N. yorkensis* Obenberger, 1922: 73.

Lectotype designations

_Notographus deyrollei_ Obenberger, 1922

From two syntypes in NMPC, ♂ lectotype, Queensland / Collectio Dr. Obenberger (p) / Typus (p, red) / Mus. Nat. Pragae Inv. (p) 22819 (h, orange) / Notographus Deyrollei m. Type (h) Det. Dr. Obenberger (p) / LECTOTYPE _Notographus deyrollei_ Obenberger ♂ BELLAMY & PETERSON (p, red); ♀ paralectotype with same labels and data except Mus. Nat. Praege Inv. 22820 and PARALECTOTYPE.

_Notographus yorkensis_ Obenberger, 1922

From two syntypes in NMPC, lectotype (sex unknown) Cap York (h) / Typus (p, red) / Mus. Nat. Pragae Inv. (p) 22845, (h, orange) / Notographus yorkensis m. Type (h) Det. Dr. Obenberger (p) / LECTOTYPE _Notographus yorkensis_ Obenberger BELLAMY & PETERSON (p, red); paralectotype (sex unknown), same labels and data except Mus. Nat. Praege Inv. 22846 and PARALECTOTYPE.

Genus _Maoraxia_ Obenberger, 1937

Remarks. The genus _Maoraxia_ Obenberger was revised by Bellamy & Williams (1985) and reviewed subsequently by Bellamy (1991a). At the time of the first revision, _M. littoralis_ Bellamy & Williams, 1985 was discussed in comparison to the presumed holotype of _Neocuris auroimpressa_ Carter, 1924 housed in the AMSA (type K32268). Having recently studied this type again and in comparison to the rather brief original description, we find that this specimen does match the description including Carter’s statements referring to the broken elytron. The perceived golden reflections Carter described are apparently from a slight residue that collected in the shallow elytral depressions which has darkened with age; if tilted under the microscope light, a slight golden highlight is still noticeable. Furthermore, fresh female specimens collected recently near the type locality of _M. littoralis_, show an irregular reflection of golden or bright light green. The holotype of _N. auroimpressa_ is nothing more than a female _M. littoralis_, but due to priority, the following combination and synonymy is needed.

_Maoraxia auroimpressa_ (Carter, 1924); **comb. n.**

_Neocuris auroimpressa_ Carter, 1924b: 531; Bellamy & Williams, 1985: 156.

_Maoraxia littoralis_ Bellamy & Williams, 1985: 154; Bellamy, 1991a: 460; **syn. n.**

Specimens examined. Holotypes of both species (AMSA).

Remarks. This synonymy expands the distribution of this species to at least Wide Bay, southern Queensland, the type locality of _M. auroimpressa_.

Genus _Synechocera_ Deyrolle, 1864

Remarks. At the time of the last revision of this interesting genus (Bellamy 1987), a serious faux pas was made with the creation of a “new” type species. When Deyrolle (1864) first proposed the generic name, he clearly indicated in a
footnote below his generic key that *Buprestis deplana* Fabricius, 1801 was the type species, by monotypy. However, Bellamy (1987), unable to locate the type specimen of the Fabricius species or any other material (see Zimsen 1964), concluded erroneously to re-designate *S. tasmanica* Théry, 1923, a clear violation of nomenclatural rules.

A study of the situation that perhaps led to the confusion about the type species and repository of the Fabricius type specimen is worth reviewing here. The following account comes from Whittell (1964).

Jacques Julien Houton de Labillardiere (1755-1834) was the resident botanist on board the d'Entrecasteaux expedition (commanding the ships Recherche and Esperance) in search of La Perouse. The voyage lasted from 1791 until 1794. Due to bad weather, the first landfall made in Australasia was at Recherche Bay, southern Tasmania. They camped at that locality from 25 April to 29 May, 1792. On 16 June 1792, they saw and reached the Isle of Pines (New Caledonia), but did not stop, continuing instead to the island of Amboina (Ambon), in the Moluccas. Six months later (early December 1792), they rounded Cape Leeuwin (Western Australia), after having sailed down the coast without anchoring anywhere. On 12 December 1792, they reached the Recherche Archipelago (near Esperance, Western Australia). The ships reached Recherche Bay in Tasmania again on 24 January 1793. On 15 February 1793, they explored the River Derwent and Tasman's Peninsula (both near Hobart, Tasmania). From Tasmania the expedition sailed for New Zealand and on into the Pacific. The collection of natural history specimens that had been made were confiscated (due to the French-British war) by the French, where they eventually made their way to the Museum National d'Histoire Naturelle (MNHN) in Paris.

Several points are worth considering:

1. J. J. H. de Labillardiere is the collector of the type of *Buprestis deplana*.
2. The plant genus *Gahnia* J. R. et G. Frost (a known larval host of *Synechocera*) is distributed as far west as Malaysia, but it is not known precisely whether it occurs on Ambon. *Xanthorrhoea*, another plant associate of *Synechocera*, is confined to Australia.
3. It is possible that mislabelling of the type locality of *Buprestis deplana* has occurred, either by original expedition members or subsequent confiscators.
4. It is likely that if the type locality of *Buprestis deplana* is actually Tasmania (because of mislabelling), that the type was collected between 24 January and sometime in February 1793 (high summer in Tasmania). The previous landfall in Tasmania by the expedition (April-May 1792) was too late and too cold for adult Buprestidae to be present.
5. Zimsen (1964) listed the following "2576. *Buprestis deplana* Syst. El. II, p. 212 - 145 »in Amboina D. Billardiere" but without any indication of the depository of the type specimen.
6. A label by the late A. Descarpentries on a single specimen of *Synechocera deplana* reads "exemplaire considéré par Cast. & Gory comme étant le Buprestis deplana Fab." is found in Box 187 of the Oberthur collection of MNHN. This specimen is conspecific with *S. tasmanica* (= *S. longior* Carter, 1928). Therefore it is likely that this specimen was used by Gory & Laporte (= Cast.) (1837) in their characterization of the species, then in the genus *Agrilus* Curtis, 1825, and that Deyrolle also utilized it for his generic characterization (1864).
7. *Buprestis deplana* is the type species of *Synechocera*, regardless of whether the type is missing. The most parsimonious course of action is to designate the holotype of *S. tasmanica* as the neotype of *B. deplana*, since the original type of the latter taxon is apparently lost or destroyed.
**Synechocera deplana (Fabricius, 1801)**

*Buprestis deplana* Fabricius, 1801: 212.  
*Synechocera deplana*: Deyrolle 1864: 115; Saunders, 1871: 109; Kerremans, 1903: 221;  
*Synechocera deplanata*: Kerremans, 1892: 237; Obenberger, 1934: 787.  
*Synechocera tasmanica* Théry, 1923: 517; Bellamy, 1987: 24; *syn. n.*  
*Synechocera longior* Carter, 1928: 274; Bellamy, 1987: 24 (*synonym of tasmanica*); *syn. n.*

**Specimens examined.** Neotype (*new designation*) (MNHN): without data; this specimen was compared to the types of *S. tasmanica* and *S. longior* at the time of the revision by Bellamy (1987).

**Genus Polyonychus** Chevrolat, 1838

*Polyonychus* Chevrolat, 1838: 102.  
**Type species.** *Polyonychus mucidus* Chevrolat, 1838 (original monotypy).

**Remarks.** Following earlier comments about this genus (Bellamy 1988a), an examination of the unique type specimen of *P. torridus* (Blackburn, 1891) from MVMA convinces us that this specimen was likely a one time introduction as it matches in all aspects *P. mucidus*, the generic type species, known only from India. Considering the situation discussed above with species of *Lampetis* described by Carter in his genus *Buprestodes*, it appears that such regional introductions do happen from time to time. Therefore, the following synonymy is proposed.

**Polyonychus mucidus** Chevrolat, 1838

*Polyonychus mucidus* Chevrolat, 1838: 102; Obenberger, 1934: 802.  
*Discoderes torridus* Blackburn, 1891: 301; Kerremans, 1903: 223; Carter, 1929c: 302; *syn. n.*  

**Remarks.** The holotype of *Discoderes torridus* from MVMA is clearly a member of the genus *Polyonychus*, as indicated earlier by Obenberger (1934), but it is also obviously conspecific with the Indian species *P. mucidus*, the type species of *Polyonychus*. Considering the new synonymy proposed above for the two species of *Buprestodes*, occasionally extra-continental taxa manage to “invade” the Australian landscape. Whether these are transported by human means, rafted in floating logs of the larval hosts or carried by large tropical storms is not known. Since these three cases are represented only by single specimens, it seems appropriate to conclude that these are unique introductions with no reason to assume that they have become established or that these taxa are members of the Australian fauna.
Genus *Sambus* Deyrolle, 1864


**Type species.** *Sambus lafertei* Deyrolle, 1864 (subsequent designation by Toyama 1986).

**Remarks.** The genus *Sambus* contains a large group of species (ca. 150) found throughout the Old World, especially Africa and Southeast Asia and including oceanic islands of the Pacific, eg. Fiji, but until now with the exception of Australia and New Zealand. The examination of the type series of *Hypocisseis minuta* Carter, 1923 showed it to be congeneric with *Sambus*, by virtue of the pair of projecting lobes on the vertex, the zigzag setal pattern of the elytra and, most diagnostically, the saltatorial hind legs, with the metafemora strongly swollen (see Bellamy 1988b, 1990, 1995). The jumping legs of *Sambus* and its three close relatives from Africa (*Pseudagrilus* Laporte, 1835, *Nickerleola* Obenberger, 1923 and *Pseudagrilodes* Obenberger, 1921) are synapomorphic within the Coraebini and will serve to separate this species from all other Australian coraebines (see Bellamy 1988a). Surprisingly, Carter (1923b) failed to note this obvious feature in his description and revision of the related genera treated therein. Unfortunately, in this new combination, *Sambus minutus* is preoccupied by the taxon of Kerremans (1896) from Sumatra. So the synonymy and new name are as follows.

*Sambus australis* Bellamy et Peterson, nom. n.

*Cisseis* (*Hypocisseis*) minuta Carter, 1923b: 175; **comb. n.** (name preoccupied by *Sambus minutus* Kerremans, 1896: 138).

**Specimens examined.** Lectotype ♂ (new designation) (SAMA): Queensland, S. Johnstone River, H. W. Brown; 5 paralectotypes (2 ANIC, 3 SAMA): same data.

**Remarks.** At the time of the original description, Carter (1923b) mentioned seven specimens (4 SAMA, 3 in Coll. Carter). We have been unable to locate the final specimen, which will become a paralectotype should it be found.

Genus *Helferella* Cobos, 1957

**Remarks.** The genus *Helferella* was erected by Cobos (1957) for a new species, *H. dianaee* Cobos, 1957, from Papua New Guinea. The Australian species of the genus have been discussed by Williams & Weir (1987, 1988). Further new species and a world catalogue of the mastogeniines were presented by Bellamy (1991b). The examination of the unique types of the following two species of *Germanica* Blackburn, 1887 in the SAMA convinced us that these taxa belong instead in *Helferella*.
Helferella abbreviata (Carter, 1926) comb. n.


Specimens examined. Holotype (sex unknown) (SAMA): Western Australia (Blackburn coll.).

Remarks. No mastogeniines are known from localities in the western two-thirds of Australia, so this species is unlikely to be synonymous with any other known species of Helferella.

Helferella elata (Carter, 1926) comb. n.


Specimens examined. Holotype (sex unknown) (SAMA): (Queensland) Bowen, on Mimosa.

Remarks. The holotype is mounted on a card and thus the ventral characters are not immediately available for examination. The configuration of the mesosternum was used to separate species and species groups by Williams & Weir (1987, 1988) and we would rather not risk damaging this unique specimen and will leave it pending further revisionary work on the genus. With several species known from the eastern coastal areas, there is a possibility that H. elata could be synonymous with one of those, but may also become the senior synonym.

New synonymy and declarations of unavailability of infrasubspecific names

The rules regarding infrasubspecific names from the 4th Edition of the ICZN are clearly established (ICZN 1999). For Australian taxa, both Carter and Obenberger erected numerous variety or aberration names that have been either listed or ignored by subsequent authors. Barker (1986) provided a checklist of the large genus Castiarina Gory et Laporte, 1838, where he listed the variety names as synonyms of the nominate species respectively. Peterson (1991a) treated Diadoxus scalaris variety blackburni Obenberger, 1928 as unavailable. In revisionary studies of the African species of Sternocera Eschscholtz, 1829 and Julodis Eschscholtz, 1829, by Holm & Gussmann (1992) and Gussmann (1997) respectively, a proposal was made to regard all infrasubspecific names of Obenberger as unavailable since Obenberger freely used the ranks of subspecies, varieties and aberrations throughout his career. Considering the precedent set by Barker (1986) to simply synonymize the variety names of Australian taxa, I will do the same below but all aberration names will be listed as unavailable; this follows the actions taken by Bíly (1997) for Anthaxia Eschscholtz, 1829.
Varieties

*Calotemognatha yarelli* (Gory et Laporte, 1838)
  var. *coerulescens* Carter, 1932: 104; syn. n.

*Cisseis duodecimmaculata* (Fabricius, 1801)
  var. *fallaciosula* Obenberger, 1935: 36; 1934: 846; syn. n.

*Curis aurifera* Gory et Laporte, 1838
  var. *castelnaudi* Obenberger, 1956: 251; syn. n.
  var. *gawlerensis* Obenberger, 1956: 251; syn. n.
  var. *viridisuturalis* Obenberger, 1956: 251; syn. n.

*Curis baumi* Obenberger, 1956
  var. *divaricata* Obenberger, 1956: 250; syn. n.

*Curis confusa* Obenberger, 1923
  var. *clara* Obenberger, 1923b: 73; 1928: 40; 1930: 567; syn. n.

*Cyriola imperialis* (Fabricius, 1801)
  var. *melaina* Carter, 1929b: 70; syn. n.

*Diadoxus erythrurus* (White, 1846)
  var. *septentrionalis* Carter, 1934: 252; syn. n.

*Diadoxus regius* Peterson, 1991
  var. *odewlni* Obenberger, 1936: 109; syn. n.
  var. *strandi* Obenberger, 1936: 109; syn. n.

*Ethon roei* Saunders, 1868
  var. *obscurum* Carter, 1934: 261; Obenberger, 1934: 862; syn. n.

*Melobasis gratiosissima* Thomson, 1879
  var. *amabiior* Obenberger, 1942: 104; syn. n.
  var. *amorosa* Obenberger, 1942: 104; syn. n.
  var. *aurora* Obenberger, 1942: 103; syn. n.

*Melobasis obscurella* Thomson, 1879
  var. *chalcosoma* Obenberger, 1942: 102; syn. n.
  var. *ignicollis* Carter, 1923: 72; syn. n.

*Melobasis purpurascens* (Fabricius, 1801)
  var. *anchoralis* Obenberger, 1942: 104; syn. n.

*Melobasis viitata* Blackburn, 1887
  var. *incipiens* Obenberger, 1942: 106; syn. n.

*Nascio vetusta* (Boisduval, 1835)
  var. *brunneipicta* Obenberger, 1928: 204; 1930: 368; syn. n.

*Nascio simillima* van de Poll, 1886
  var. *strandella* Obenberger, 1936: 130; syn. n.

*Nascio xanthura* (Gory et Laporte, 1839)
  var. *humeralis* Obenberger, 1928: 204; 1930: 368; syn. n.

*Neocuris coerulans* Fairmaire, 1877

*Neocuris pilosula* Obenberger, 1923; Carter 1928: 272.
  var. *similis* Obenberger, 1923b: 73 (var. pilosula); syn. n.

*Neocuris gracilis* Macleay, 1872
  var. *lepida* Obenberger, 1923b: 75; syn. n.

*Neocuris guerinii* (Hope, 1843)
  var. *subtilis* Obenberger, 1923b: 76; syn. n.
Contributions to the taxonomy of Australian Buprestidae I (Coleoptera)

Temognatha alternata (Lumholtz, 1889)
  var. lumholtzi Obenberger, 1933: 72; syn. n.

Temognatha mnizechii (Saunders, 1868)
  var. caerulans Deuquet, 1956: 153; syn. n.

Temognatha nickerli (Obenberger, 1922)
  syn. Temognatha strandi (Obenberger, 1922)
  var. usticolis Obenberger, 1922: 114; syn. n.

Temognatha pictipes (Blackburn, 1894)
  var. pavo Carter 1934: 257; syn. n.

Temognatha suturalis (Donovan, 1805)
  var. tincticollis Obenberger, 1922: 112; syn. n.

Aberrations

Castiarina jospilota (Gory et Laporte, 1838)
  ab. bipunctula Obenberger, 1933: 74; unvn.

Castiarina mustelamajor (Thomson, 1857)
  ab. quadristictula Obenberger, 1933: 70; unvn.
  ab. quinquesticta Obenberger, 1933: 69; unvn.
  ab. tristicta Obenberger, 1933: 70; unvn.

Castiarina octomaculata (Saunders, 1868)
  ab. phaedra Obenberger, 1933: 112; unvn.

Castiarina octospilota (Hope in Gory et Laporte, 1838)
  ab. deruta Obenberger, 1933: 71; unvn.
  ab. opulenta Obenberger, 1933: 71; unvn.
  ab. persignata Obenberger, 1933: 71; unvn.

Castiarina piliventris (Saunders, 1868)
  ab. semele Obenberger, 1933: 110; unvn.
  ab. persea Obenberger, 1933: 110; unvn.
  ab. nautilia Obenberger, 1933: 110; unvn.
  ab. marsepesa Obenberger, 1933: 110; unvn.
  ab. nausithoe Obenberger, 1933: 110; unvn.

Castiarina planata Carter, 1916
  syn. Castiarina auricollis (Thomson, 1857)
  ab. lineifera Obenberger, 1933: 72; unvn.
  ab. adulans Obenberger, 1933: 72; unvn.
  ab. fraterna Obenberger, 1933: 72; unvn.
  ab. serena Obenberger, 1933: 72; unvn.
  ab. chrysecollis Obenberger, 1933: 72; unvn.
  ab. obsoletea Obenberger, 1933: 72; unvn.
  ab. monosticta Obenberger, 1933: 72; unvn.
  ab. misella Obenberger, 1933: 72; unvn.
  ab. disticta Obenberger, 1933: 72; unvn.
  ab. eusticta Obenberger, 1933: 72; unvn.
  ab. pseudobintaculata Obenberger, 1933: 73; unvn.

Castiarina sanguinolenta (Gory et Laporte, 1838)
  ab. erbeni Obenberger, 1933: 71; unvn.
Castiarina skusei (Blackburn, 1892)  
ab. deviatrix Obenberger, 1933: 73; unvn.  

Castiarina subtrifasciata (Gory et Laporte, 1838)  
syn. Castiarina rubroincta Géhin, 1855  
ab. euanthe Obenberger, 1933: 107; unvn.  
ab. selene Obenberger, 1933: 108; unvn.  
ab. agamede Obenberger, 1933: 108; unvn.  
ab. heva Obenberger, 1933: 108; unvn.  
ab. beroe Obenberger, 1933: 108; unvn.  
ab. parca Obenberger, 1933: 108; unvn.  
ab. eunoxa Obenberger, 1933: 109; unvn.  
ab. nymphula Obenberger, 1933: 109; unvn.  

Castiarina undulata (Donovan, 1805)  
ab. sydneyensis Obenberger, 1933: 76; unvn.  

Castiarina viittata (Saunders, 1868)  
ab. interruptula Obenberger, 1933: 71; unvn.  

Curis carteri Obenberger, 1956  
ab. aeneicollis Obenberger 1956: 249; unvn.  

Cyriola imperialis (Fabricius, 1801)  
ab. herbstii Obenberger, 1947: 77; unvn.  
ab. macleayi Obenberger, 1947: 78; unvn.  
ab. isolata Obenberger, 1947: 78; unvn.  
ab. blackburni Obenberger, 1947: 78; unvn.  
ab. helmsi Obenberger, 1947: 80; unvn.  
ab. jessupi Obenberger, 1947: 80; unvn.  
ab. donovaniella Obenberger, 1947: 80; unvn.  
ab. druryi Obenberger, 1947: 80; unvn.  
ab. dorbignyi Obenberger, 1947: 80; unvn.  
ab. anticejuncta Obenberger, 1947: 80; unvn.  
ab. zyzyga Obenberger, 1947: 80; unvn.  
ab. anchoralis Obenberger, 1947: 80; unvn.  
ab. dohertyi Obenberger, 1947: 80; unvn.  
ab. posticejuncta Obenberger, 1947: 80; unvn.  
ab. odewahni Obenberger, 1947: 80; unvn.  
ab. hopei Obenberger, 1947: 81; unvn.  
ab. saundersi Obenberger, 1947: 81; unvn.  
ab. wallacei Obenberger, 1947: 81; unvn.  
ab. carteri Obenberger, 1947: 81; unvn.  
ab. bosidivali Obenberger, 1947: 81; unvn.  
ab. nickerli Obenberger, 1947: 81; unvn.  

Julodimorpha bakewelli (White, 1859)  
ab. cyanicollis Obenberger, 1928: 83; unvn.  
ab. viridicollis Obenberger, 1928: 83; unvn.  

Melobasis cupreovittata Saunders, 1876  
ab. univittata Obenberger, 1942: 99; unvn.  

Temognatha bruckii Thomson, 1878  
ab. casta Obenberger, 1933: 67; unvn.  

Temognatha obscuripennis (Mannerheim, 1837)  
ab. mannerheimi Obenberger, 1933: 67; unvn.
Acknowledgements

We thank the curators and collection managers that assisted us in our recent visits: Dr. Dan Bickle and Mr. Max Moulds, Australian Museum; Dr. John Lawrence, Dr. Rolf Oberprieler and Mr. Tom Weir, Australian National Insect Collection; Dr. Ken Walker, Museum of Victoria; Dr. Eric Matthews and Dr. Shelley Barker, South Australian Museum; Dr. Terry Houston and Mr. Brian Hanich, Western Australian Museum, and Dr. Lee Herman, American Museum of Natural History. We thank Dr. Svatopluk Bílý for his hospitality during the 1995 visit of CLB and for quickly forwarding the type of *Eububastes* to confirm our suspicions of the new synonymy. We also thank Mr. Greg Barron, Perth; Mr. Mark Golding, Perth; Mr. Mark Hanlon, Sydney; Mr. Paul Hutchinson, Perth; Mr. David Knowles, Perth; Mr. Michael Powell, Perth; Dr. Glen Shea, Sydney; and Dr. Geoff Williams, Lansdowne, New South Wales, for many favours extended during the course of our transcontinental journey.

References


Oberberger J. 1936: Eine Festarbeit zum sechzigjährigen Jubiläum meines Freundes Univ.-Prof. Dr. Embrik Strand. Fest.-Schr. 60. Geburstag E. Strand. 1: 97-145.


Théry A. 1945: Descriptions de deux Buprestides des faunes australienne et mélanésienne (Col.). Bull. Soc. Entomol. Fr. 50: 45-47.


