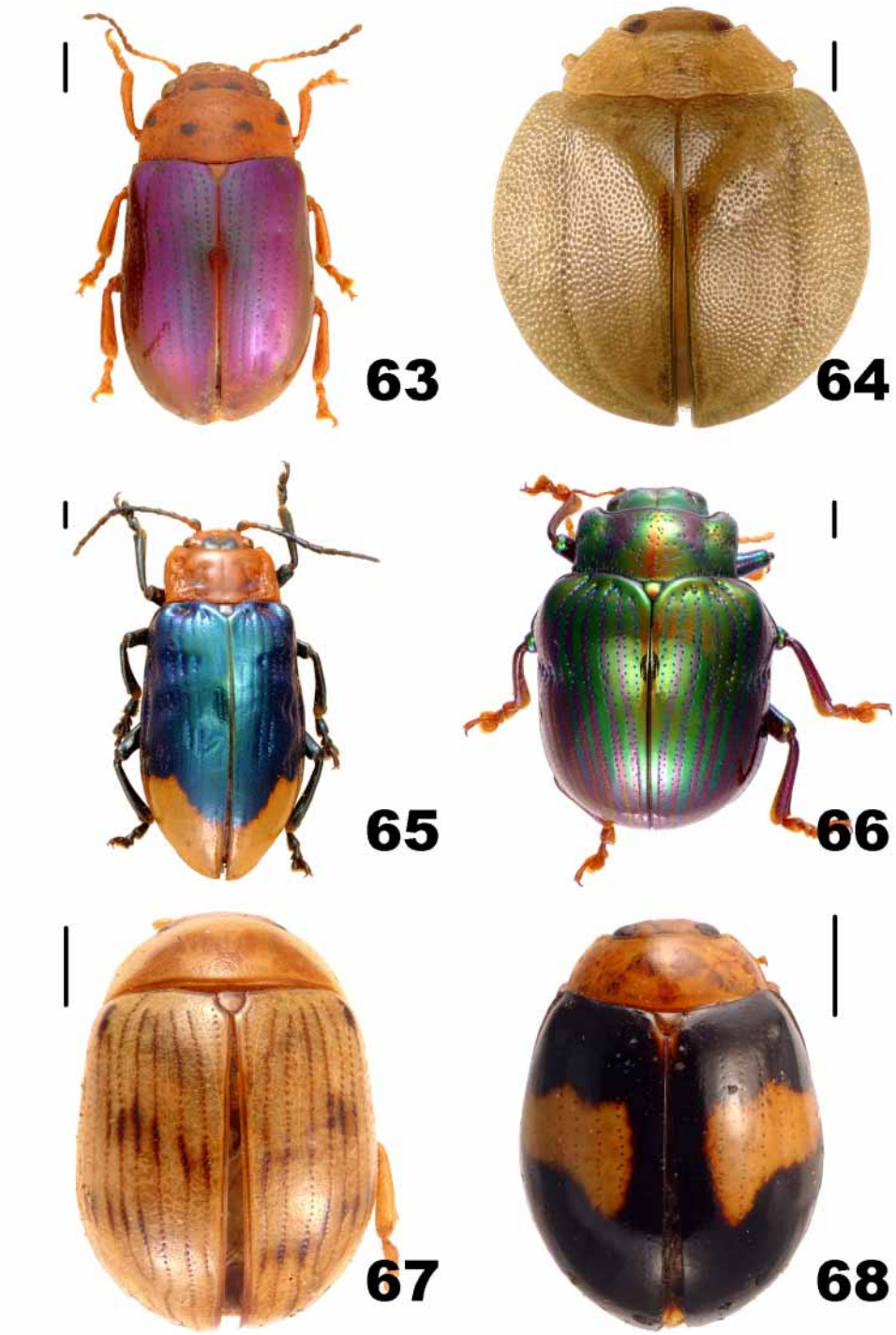
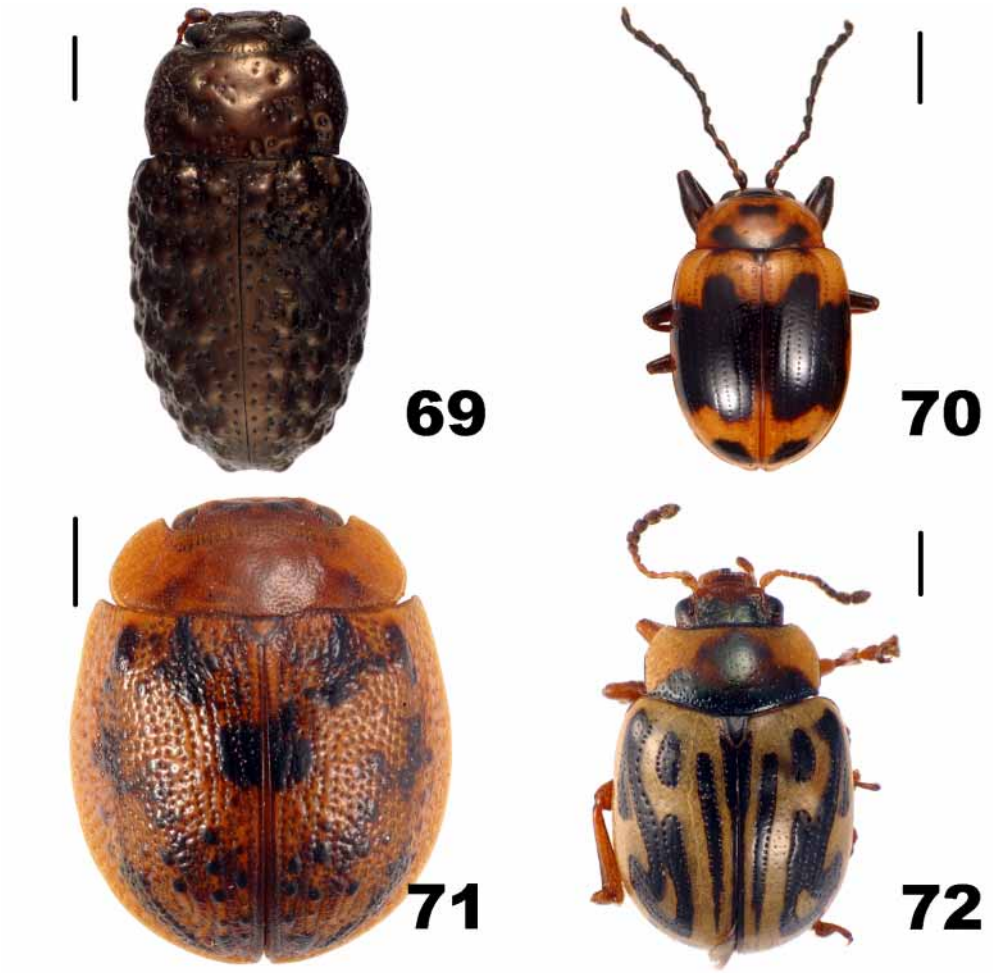


FIGURES 63–68. Habitus photographs of Australian Chrysomelinae, dorsal: 63, *Platymela sticticollis* Baly; 64, *Poropteromela epipleuralis* Lea; 65, *Promechus australicus* (Jacoby); 66, *Pterodunga mirabile* Daccordi; 67, *Rhaebosterna sciola* Weise; 68, *Sphaerotritoma coccinelloides* (Lea). Line = 1mm.



FIGURES 69–72. Habitus photographs of Australian Chrysomelinae, dorsal: 69, *Strumatophyma verrucosa* (Clark); 70, *Tinosis decemmaculata* Weise; 71, *Trachymela* species; 72, *Zygogramma bicolorata* Pallister. Line = 1mm.

Alfius Reid, 2006
(Fig. 28)

Type species. *Oomela pictipennis* Lea, 1929, by original designation.

Diagnostic description

See above.

Notes

Alfius is endemic to Queensland, Australia. Number of species: 3. Host-plants: unknown. Imature stages: unknown.

The systematic position of Alfius and its differentiation from morphologically similar genera are discussed above. *Alfius* is a member of the *Phyllocharis*-group of genera. It is most similar to *Tinosis*, from which it differs by: deeply grooved sides of frons; quadrate apical maxillary palpomere; narrow, anteriorly ridged, prosternal process.

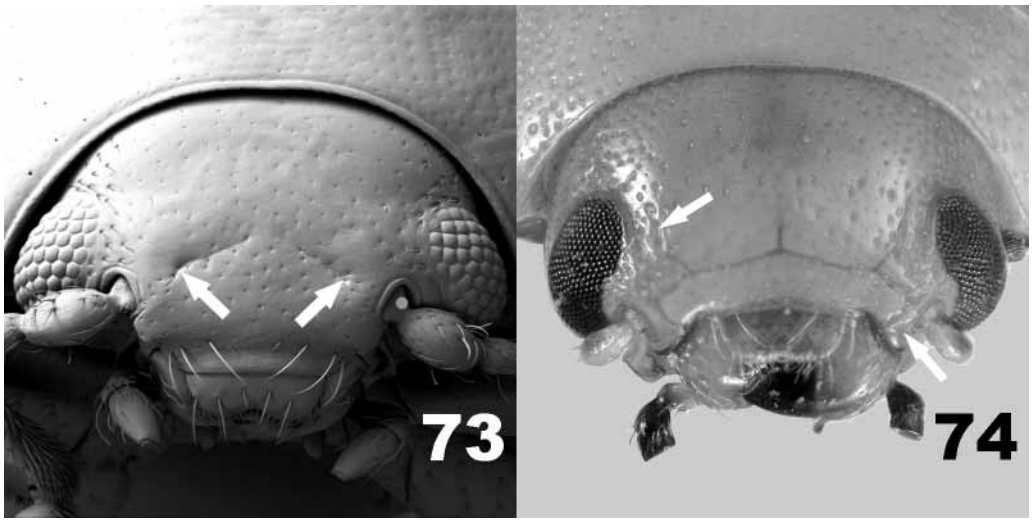
Ateratocerus Blackburn, 1890

(Fig. 29)

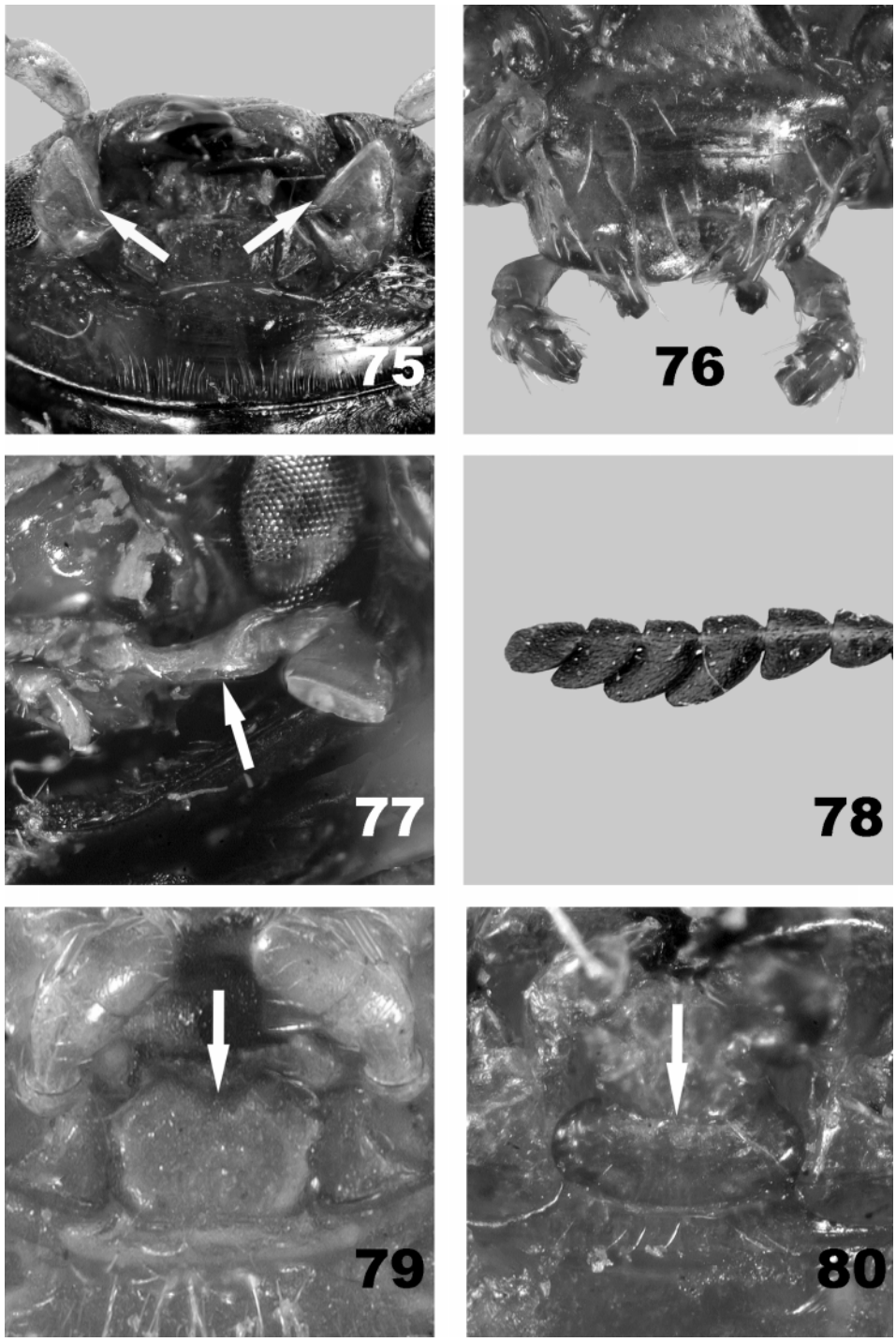
Type species. *Ateratocerus intricatus* Blackburn, 1890, by monotypy.

Diagnostic description

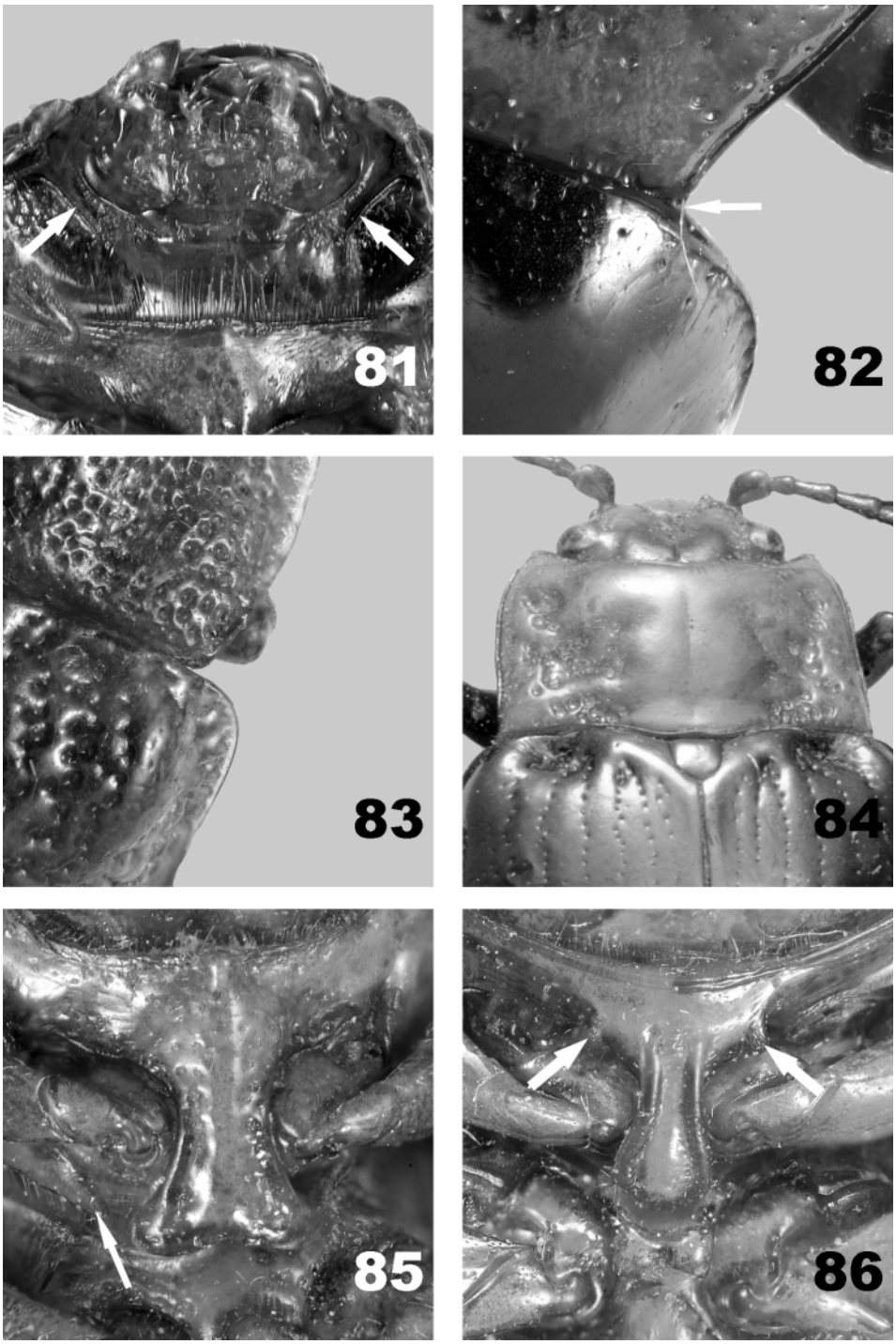
Length 5–7mm; body elongate and flat, length to width ratio 2, length to height ratio 3.5. Head: not contracted behind eyes, eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture broadly V-shaped, sides not ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere not flattened; apical maxillary palpomere quadrate, with truncate apex; apical margin of mentum shallowly concave. Thorax: pronotum broadest at or near base; trichobothria present in anterior and posterior angles; pronotal disc smooth, almost impunctate; base of pronotum with narrow raised border; hypomeron without lateral groove; anterior of prosternum without median or lateral ridges, not medially produced; prosternal process slightly elongate, without a pair of right-angled lobes at base; procoxal cavity open, gap at least half width of coxa; elytra at humeri much broader than pronotum; elytra non-tuberculate, distinctly striate near suture and at sides, 5th stria deepened at base; elytron not ventrally extended at sides,



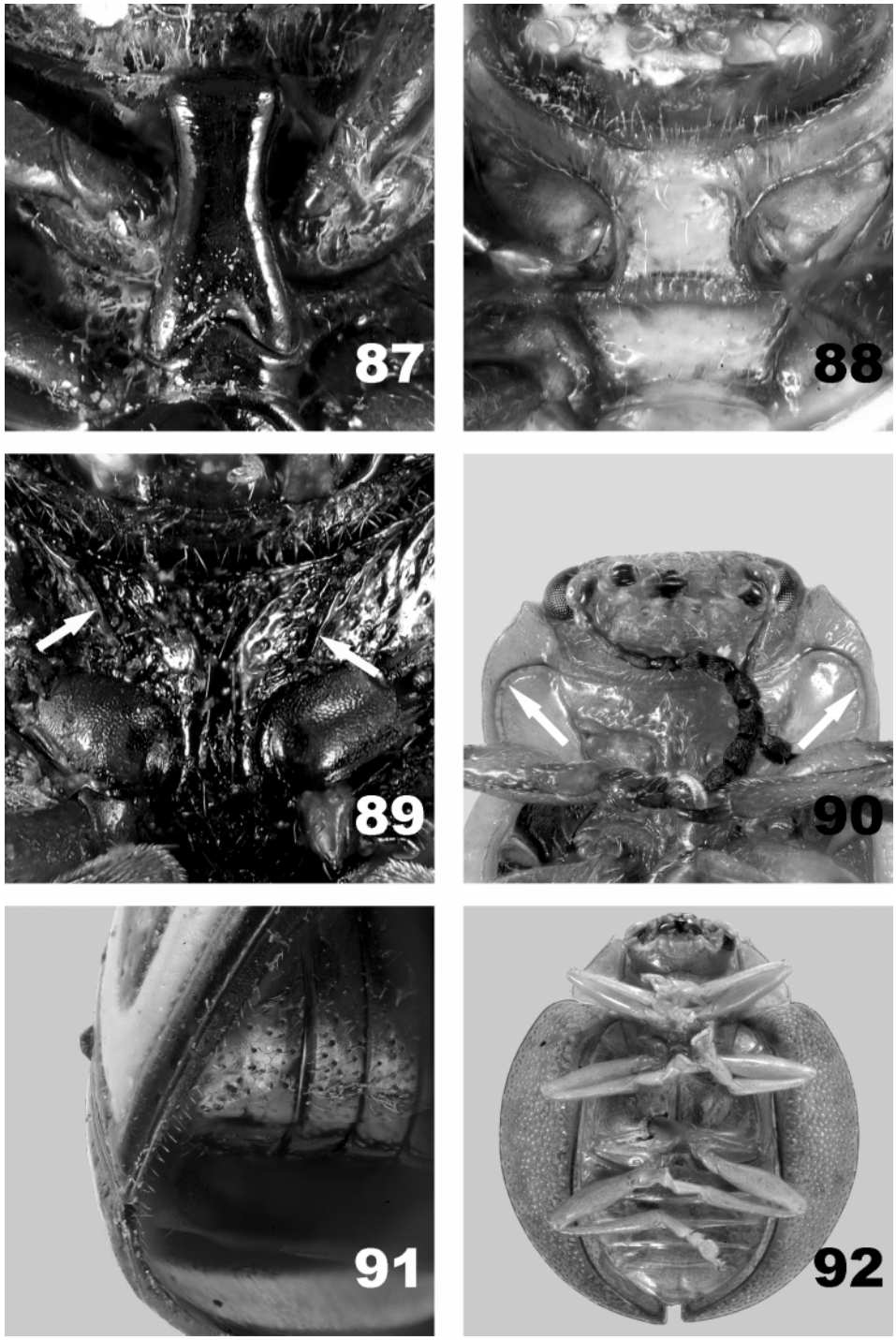
FIGURES 73–74. Chrysomelinae morphology. Head: 73, *Geomela blackburni* Lea (frontoclypeal pits arrowed); 74, *Platymela* species (grooves and ridges arrowed).



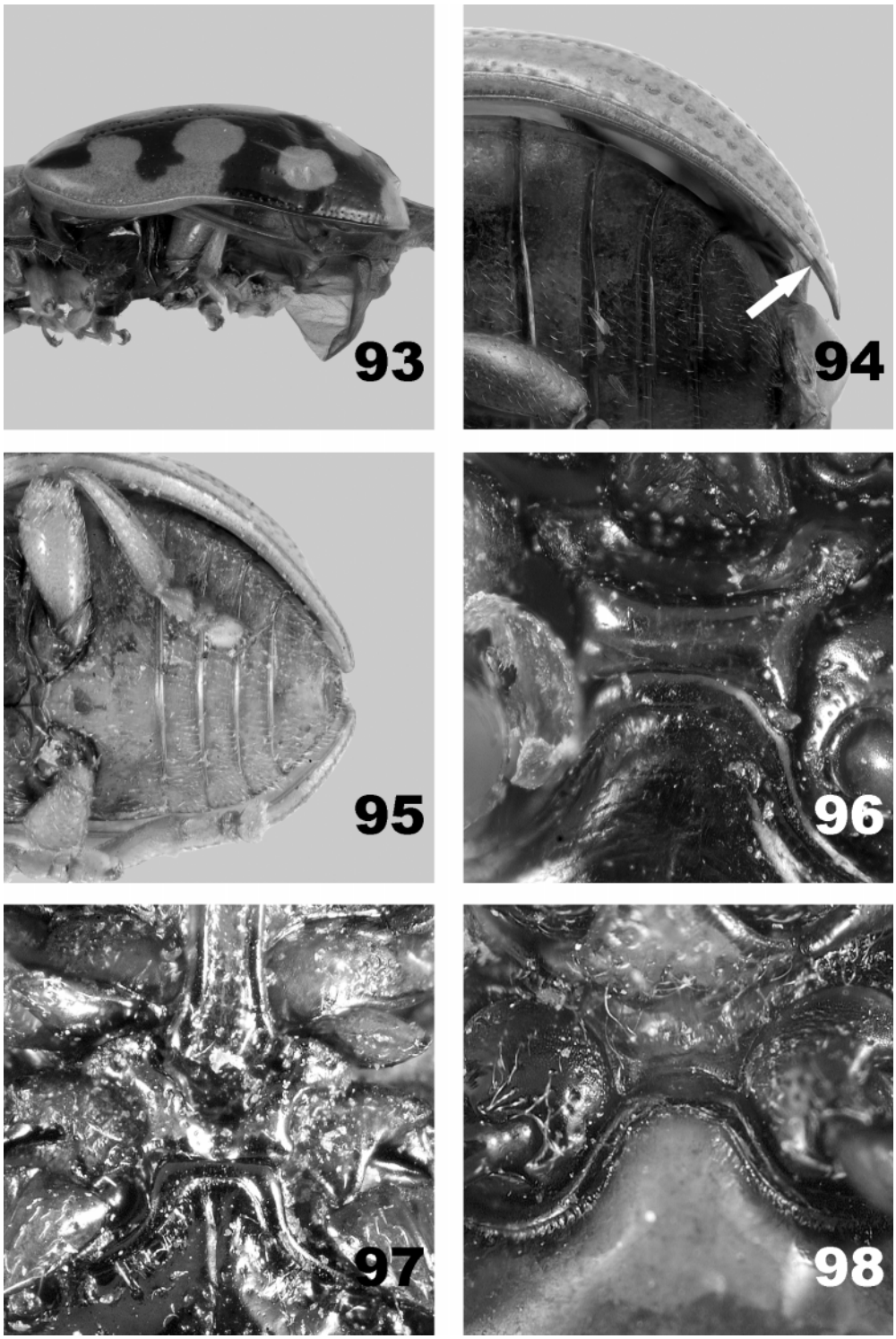
FIGURES 75–80. Chrysomelinae morphology. Maxillary palpi: 75, *Paropsisterna* species; 76, *Lamprolina* species; 77, *Dicranosterna immaculata* (Marsham). Apical antennomeres: 78, *Johannica gemellata* (Westwood). Mentum: 79, *Novacastria nothofagi* Selman; 80, *Lamprolina* species.



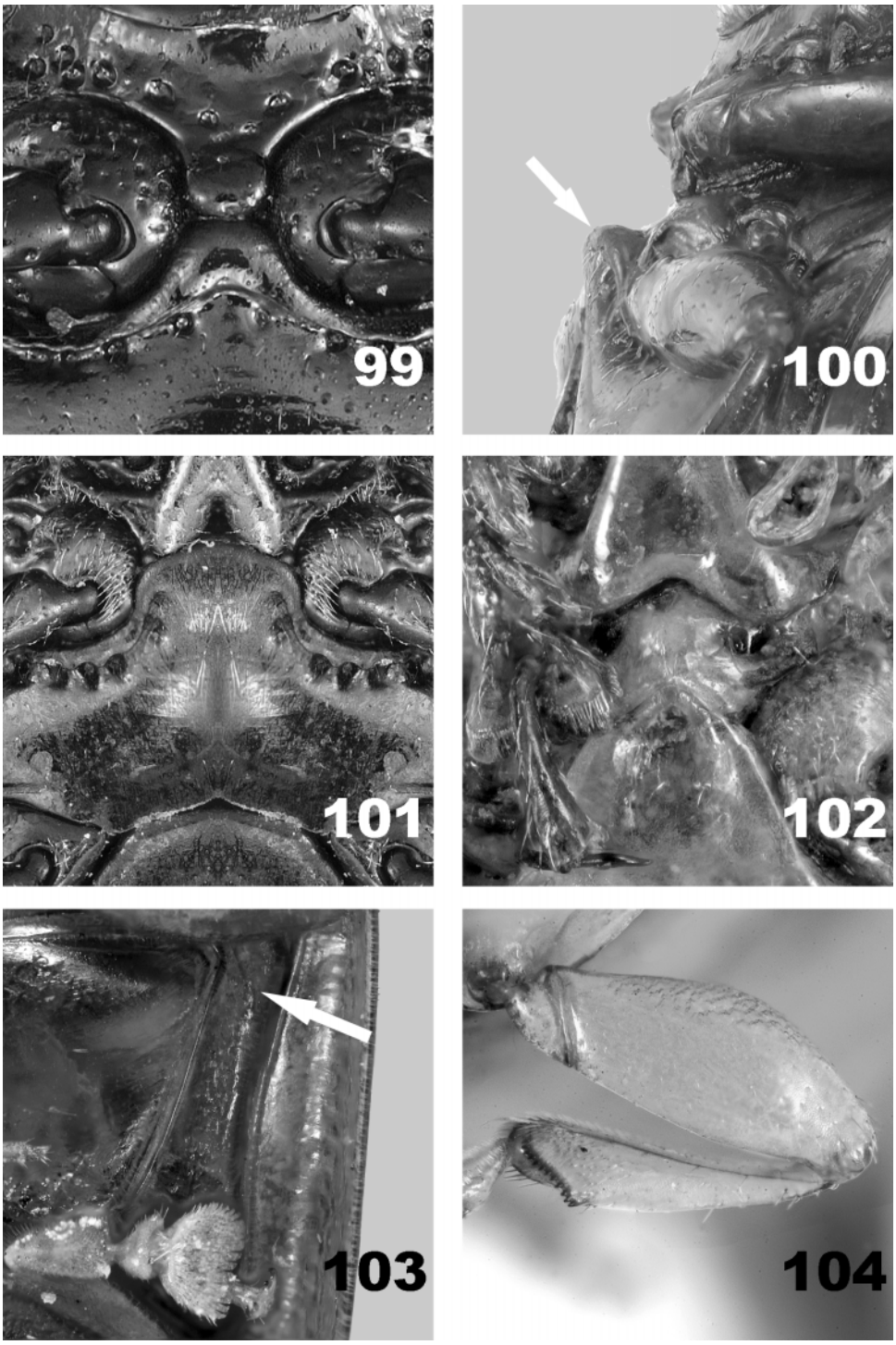
FIGURES 81–86. Chrysomelinae morphology. Venter of head: 81, *Philhydronopa aeneipennis* (Chapuis) (genal ridge arrowed). Pronotal angles (trichobothrial seta): 82, *Chalcomela nitida* (Baly); 83, *Trachymela* species. Pronotum: 84, *Promechus australicus* (Jacoby). Prosternum: 85, *Lamprolina aeneipennis* (Boisduval) (hypomeral lobe arrowed); 86, *Paropsis* species (angled lobes arrowed).



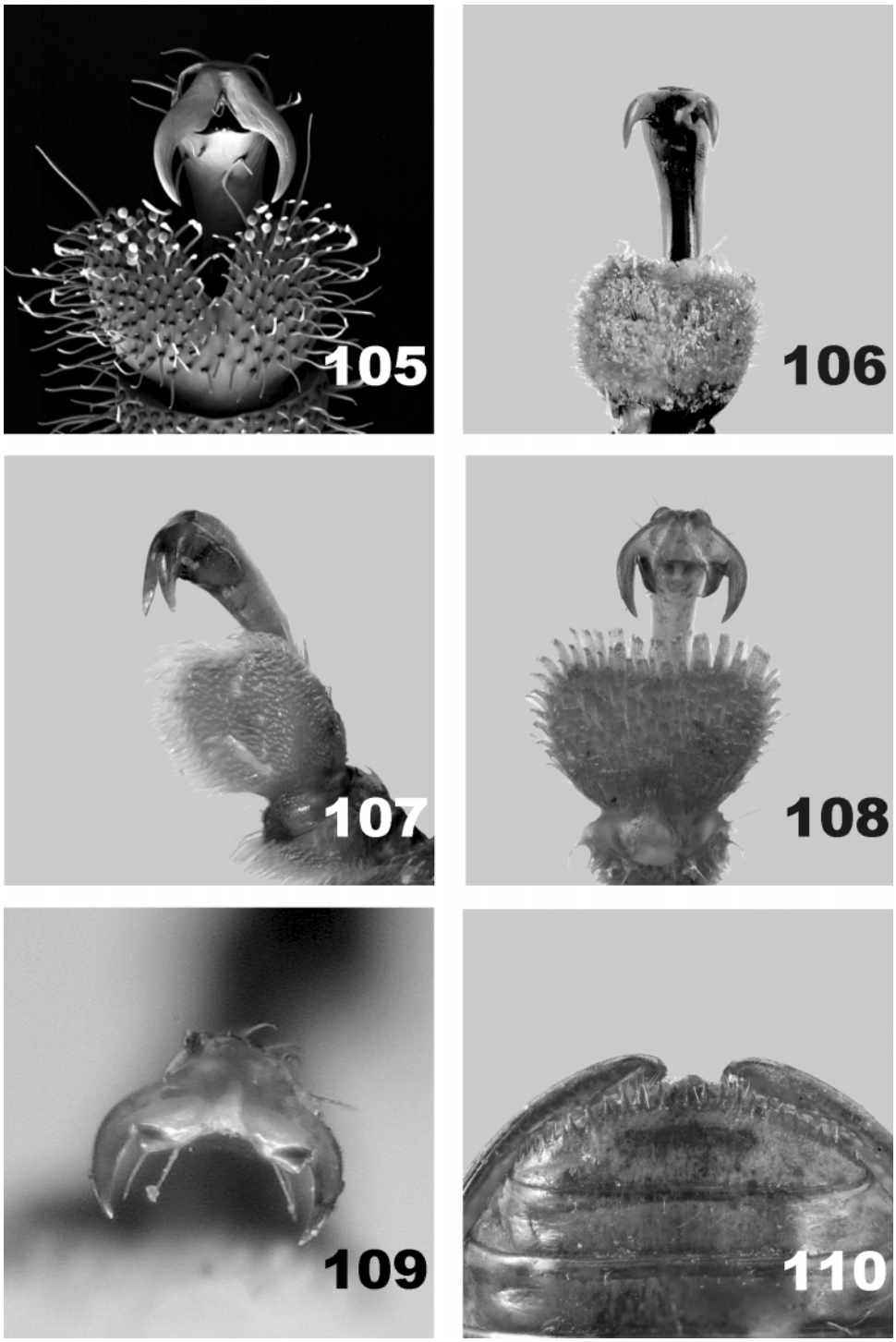
FIGURES 87–92. Chrysomelinae morphology. Prosternum: 87, *Hysmatodon aenea* (Weise); 88, *Tinosis decemmaculata* Weise; 89, *Ethomela* species (oblique ridges arrowed). Prothoracic hypomeron: 90, *Calomela* species. Epipleuron: 91, *Deuterocampta quadrijuga* (Stål); 92, *Poropteromela epipleuralis* Lea.



FIGURES 93–98. Chrysomelinae morphology. Epipleuron: 93, *Phola octodecimguttata* (F.); 94, *Ewanius nothofagi* Reid; 95, *Novacastria nothofagi* Selman. Meso- and metaventrite processes: 96, *Paropsisterna* species; 97, *Trachymela* species; 98, *Phyllocharis* species.



FIGURES 99–104. Chrysomelinae morphology. Meso- and metaventrite processes: 99, *Chalcolampra* species; 100, *Grammicomela quadrilineata* Lea; 101, *Pterodunga mirabile* Daccordi; 102, *Eulina haematosticta* Lea. Metepisternum: 103, *Paropsides* species. Apex of hind tibia: 104, *Faex* species.



FIGURES 105–110. Chrysomelinae morphology. Apex of tarsus: 105, *Geomela blackburni* Lea; 106, *Deuterocampta quadrijuga* (Stål); 107, *Zygogramma bicolorata* Pallister; 108, *Paropsides* species; 109, *Paropsimorpha mirogaster* (Lea). Apex of abdomen: 110, *Ateratocerus intricatus* Blackburn.

epipleuron entirely visible, sinuate, gradually attenuated from base to apex; epipleuron narrow, much less than quarter width of elytral remainder; apical half of epipleuron without short stiff setae; anterior face of mesoventrite process abruptly sloping, straight, posterior margin straight; metepisternum smooth, without longitudinal groove; metaventrite without anterior femoral plates; metaventrite process not anteriorly raised; apices of mid and hind tibia without row of teeth; tibiae with partial or without external keels; apex of third tarsomere slightly concave; claws toothed, basal lobe appendiculate and right-angled. Abdomen: pygidium without well-defined median groove; abdominal ventrites free, smooth, without distinct punctures; apex of last ventrite strongly serrate.

Notes

Ateratocerus is endemic to north-eastern New South Wales and south-east Queensland, Australia. Number of species: 1. Host-plants: *Stenocarpus* (Proteaceae). Imature stages: unknown.

Ateratocerus is morphologically similar to species of the group of genera including *Chalcolampra*, *Phyllocharis* and *Promechus*, but differs from these by the broadly open procoxal cavities, non-striate elytra and serrate apical abdominal ventrite. Recognition of *Ateratocerus* may render one of these other genera paraphyletic.

Callidemum Blanchard, 1853

(Fig. 30)

Type species. *Callidemum viride* Blanchard, 1853, by monotypy.

= *Stethomela* Baly, 1856; syn. conf. Type species. *Stethomela submetallica* Baly, 1856, this designation.

= *Augomela* Baly, 1856; syn. conf. Type species. *Chrysomela hypochalcea* Germar, 1848, this designation.

= *Kurumela* Gressitt, 1963; syn. conf. Type species. *Kurumela citri* Gressitt, 1963, by monotypy.

= *Clidonotus* Chapuis, 1874; **syn. nov.** Type species. *Stethomela gibbosa* Baly, 1862, by monotypy.

Diagnostic description (Australian species)

Length: 5–12mm; body moderately elongate to short and squat (length to width ratio 1.3–2), moderately to strongly convex (length to height ratio 1.8–2.5). Head: not or slightly contracted behind non-protuberant eyes; frons without vertical groove beside inner margin of eye, frontoclypeal grooves rounded, V- or M-shaped, lateral margins smooth, without abrupt ridge; gena with (most species of *Augomela*) or without (most species of *Stethomela*) straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at

middle or base; trichobothria present in anterior and posterior angles; pronotal disc smooth, almost impunctate, or distinctly punctured, sides strongly punctured but without deep depressions; base of pronotum without narrow raised border; hypomeron without lateral groove; anterior of prosternum without median or lateral ridges, or with middle strongly elevated as a single thick ridge, either distinctly medially produced or not; prosternal process quadrate or elongate, without a pair of right-angled lobes at base, apex bilobed; procoxal cavity open, gap at least half width of coxa; elytra non-tuberculate, distinctly striate near suture and at sides, or with sparse large punctures, or discal punctures confused, 5th stria deepened at base; elytra not extended at sides, epipleura mostly or entirely visible from sides; epipleuron narrow, <0.2x elytral width, gradually attenuated to apex, without short stiff setae; anterior face of mesoventrite process gently or abruptly elevated, convex, posterior margin strongly concave; metepisternum without abrupt longitudinal groove, but may have line of deep punctures; metaventrite without femoral plates; metaventrite process not anteriorly raised; apices of mid and hind tibiae without row of teeth; tibiae with a single external keel or without sharp external keels; apex of third tarsomere slightly concave; claws acutely toothed. Abdomen: pygidium without well-defined median groove; abdominal ventrites free, with or without distinct setiferous punctures; apex of last ventrite rounded or truncate in female, truncate, often toothed, rarely trilobate (*C. gibbosum*) in male, often medially depressed.

Notes

Callidemum is found in New Guinea, the eastern islands of Maluku and Australia. Number of species: approximately 70 have been seen in collections, 50 have been described. Host-plants: Elaeocarpaceae (*Elaeocarpus*, *Sloanea*); Fabaceae (*Acacia*); Rutaceae (*Citrus*: Gressitt 1963); Sapindaceae (*Dodonaea*); Surianaceae (*Guilfoylia*: Hawkeswood & Takizawa 2002). Most species of *Callidemum* are confined to rainforests, but *C. hypochalceum* feeds on *Dodonaea* throughout semi-arid southern Australia. The record of *Augomela hypochalcea* feeding on Celastraceae (Hawkeswood 1988; Jolivet & Hawkeswood 1995) was a misidentification (Reid 1995a) of *Chalcomela insignis* Baly (original specimens seen). The record of *Stethomela* on *Melastoma* (Jolivet and Hawkeswood 1995) probably refers to a casual visitor. The same authors erroneously record *Augomela* on *Acacia* (Reid 1995a), but other species of *Callidemum*, described under *Stethomela*, certainly feed on this host. Larvae of two species of *Callidemum* have been described (Reid & Berti 1992; Hawkeswood & Takizawa 2002). I have reared larvae of several other species and have examined reared larvae of *C. gibbosum* (collected by G. Monteith). Larvae are either cylindrical or globular, usually with inconspicuous setae and few dorsal sclerites. There is a pair of dorsal glands, but these are usually inverted. Preapical pseudopoda are absent.

Daccordi (1994) listed seven subgenera under the name *Callidemum*: *Augomela*, *Callidemum*, *Gastromela*, *Kurumela*, *Macelola*, *Platymela* and *Stethomela*. Of these, 'Gastromela', is a *nomen nudum*, as no diagnosis was given and mere mention of three

included species no longer constitutes valid procedure for erecting a genus (International Commission on Zoological Nomenclature, 1999, Article 13 (a)). This name is not available and can therefore be ignored. *Platymela* and *Macelola* are removed from synonymy with *Callidemum* (see under *Platymela* below). Type species have not been designated for *Augomela* and *Stethomela* (Reid & Berti 1992). I nominate *Chrysomela hypochalcea* Germar as type species for *Augomela* Baly and *Stethomela submetallica* Baly for *Stethomela* Baly. The described species of *Augomela*, *Callidemum*, *Kurumela* and *Stethomela* do not show any significant differences (Reid & Berti 1992) and are therefore synonymised with *Callidemum*, justified as follows. The oldest name for this assemblage of species, *Callidemum*, was raised for a single New Guinean species originally described in Eumolpinae. It has been redescribed, including the first-instar larva (Reid & Berti 1992). The adults of the type species of *Callidemum* and *Stethomela* do not differ significantly, but the larvae of *Stethomela submetallica* (see: Hawkeswood & Takizawa 2002) are similar to *Calomela* and differ considerably from the type species of *Callidemum* (see: Reid & Berti 1992). It is likely that first-instar larvae of ovo-viviparous species differ morphologically from oviparous relatives and the synonymy proposed by Daccordi is accepted here. *Augomela* probably includes a monophyletic species-group, the *hypochalcea* species-group, characterised by entirely metallic adults, a smooth deep groove between mouth and eye, and females with a flat prosternum. The male of one species has horned mandibles (*C. cornutum* Baly). The prosternal character has been used to separate *Augomela* and *Stethomela* (see: Selman 1979, 1983 [states reversed in the key!]), but is sexually dimorphic in some species. None of these features are unique to this group, therefore the generic synonymy is justified. *Kurumela* was described for a single species with no features differentiating it from *Callidemum* and this synonymy is also accepted. The genus *Clidonotus* was erected for a flightless species with greater body convexity than any others of this group (Chapuis 1874). The apex of the male last ventrite of this species is divided like species of *Paropsimorpha*, but the female genitalia, claws, prosternal process and globular glabrous larvae are similar to species described in *Stethomela. Clidonotus* is therefore placed in synonymy with *Callidemum* **(syn. nov**.). The synonymy of these genera with masculine and feminine names under a neuter name requires several changes in spelling of species names (International Commission on Zoological Nomenclature 1999, Article 34.2).

Some species of *Callidemum* have slightly expanded apical maxillary palpomeres and the genus is therefore treated twice in the key.

The genus *Callidemum* lacks obvious synapomorphies. It may be a paraphyletic assemblage of species, distinguished by the securiform apical maxillary palpomeres, all four pronotal trichobothria present, epipleura visible laterally, open procoxal cavities, claws toothed and ovipositor reduced.

***Calligrapha* Chevrolat, 1836**
(Fig. 31)

Type species. *Chrysomela polyspila* Germar, 1821, by subsequent designation (for references see: Riley, Clark & Seeno 2003).

Notes

The genus is endemic to the Americas. A Central American species of *Calligrapha* (*C. pantherina* Stål) has been successfully released for biocontrol of the weed *Sida* (Malvaceae) in northern Australia (Forno, Kassulke & Harley 1992). *Calligrapha* and *Chrysolina* are poorly differentiated genera (Arnett 1971). Separation of the two genera in the key above is based on the species occurring in Australia. The larva and pupa of *Calligrapha* have been described (Wheeler & Hoebeke 1979; Costa, Vanin & Casari-Chen 1988; Lawson 1991; Cox 1996).

***Calomela* Hope, 1840**
(Fig. 32)

Type species. *Chrysomela curtisi* Kirby, 1818, by monotypy.
= *Callimela* Agassiz, 1846; unnecessary emendation of *Calomela* Hope.
= *Lamprotoptera* Motschulsky, 1860; syn. conf. Type species. *Chrysomela maculicollis* Boisduval, 1835, by original designation.
= *Tetratica* Motschulsky, 1860; syn. conf. Type species. *Chrysomela ruficeps* Boisduval, 1835, by original designation.
= *Carystea* Baly, 1865; syn. conf. Type species. *Australica waterhousei* Baly, 1864, by original designation.
= *Paralepta* Baly, 1878; syn. conf. Type species. *Paralepta foveicollis* Baly, 1878, by original designation.
= *Calolina* Lhoste, 1934; syn. conf. Type species. *Calolina geminata* Lhoste, 1934, by original designation.
= *Platysocia* Lhoste, 1934; syn. conf. Type species. *Platysocia parallela* Lhoste, 1934, by original designation.
= *Lamecola* Selman, 1976; syn. conf. Type species. *Calomela laticollis* Lea, 1916, by original designation.
= *Starycea* Selman, 1977; syn. conf. Type species. *Carystea jansoni* Baly, 1865, by original designation.
= *Parastarycea* Selman, 1977; syn. conf. Type species. *Carystea micans* Baly, 1876, by original designation.

Diagnostic description

Length: 4–11mm; body shape variable, most species moderately narrow (length to width ratio >1.8) and flat (length - height ratio >2.6), but some, generally rainforest species, broad (length to width ratio <1.8) and convex (length to height ratio 2–3.3). Head: contracted behind eyes; frons without vertical groove beside inner margin of eye;

frontoclypeal suture triangular to strongly transverse, V - shaped or rounded, lateral margins smooth, without abrupt ridge; gena without straight ridge and groove to accommodate antenna, or short ridge and groove present but groove punctate (eg., *C. fulvilabris* (Germar)); antennomeres 8–10 not laterally expanded, but may be transverse (eg., *C. selmani* Daccordi); first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at middle or at base; anterior trichobothria present; posterior trichobothria present; sides of pronotal disc with irregular punctate depression on each side, rarely with only scattered large punctures; base of pronotum without margination; deep hypomeral groove present, curving from prosternal suture then parallel to pronotal margin, rarely shallow or obliterated by transverse ridges; anterior of prosternum without median or lateral ridges, midline not anteriorly produced; prosternal process narrow, longer than broad (but apex often bilobed or abruptly expanded), with basal right-angled lobes absent; procoxal cavity open, gap at least half width of procoxa; elytral tubercules absent; elytral striae usually present, rarely absent (but punctures longitudinally arranged), 5th stria deeper at base compared to adjacent striae, or not; elytra not extended vertically, epipleura mostly or entirely visible from sides; epipleuron narrow, <0.2xwidth of elytron, gradually attenuated, without setae; anterior face of mesoventrite process rarely gradually raised, usually abruptly raised and convex or truncate, posterior margin truncate to strongly concave; metepisternum without abrupt longitudinal groove, but may have line of deep punctures; metaventrite anterior femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without obvious external keels; apex of third tarsomere not or feebly bilobed; claws simple, or simply toothed or appendiculate with sharp basal tooth. Abdomen: pygidial groove absent; abdominal ventrites free, with or without patches of large setiferous punctures; apex of last ventrite strongly or shallowly excavate, or truncate, often with a pair of teeth, usually with median depression in male.

Notes

Calomela occurs in New Guinea and Australia. Number of species: approximately 45. Host-plants: Fabaceae (*Acacia*) (Reid 1989; Hunt, Gullan & Reid 1996). The record for Proteaceae (Selman 1979) is based on a single specimen collected by beating. I have reared larvae of more than 12 species. All are globular, usually with inconspicuous setae and few dorsal sclerites. A pair of dorsal glands is present but these are usually inverted. Preapical pseudopoda are absent.

The number of genera in the *Calomela*-group was drastically reduced by Daccordi (1994), followed by Matthews and Reid (2002), but without any accompanying justification. I concur with synonymy of all those *Calomela*-like genera with a deep hypomeral groove (Selman 1977, 1979). There is no reason for separating the assemblages

of species with simple, toothed, appendiculate or bifid claws, as genera (Selman 1977, 1979) or subgenera (Daccordi 1994), because probable sister-species within *Calomela* can differ in this character (Selman 1979; Reid 1992a) and the assemblages are most unlikely to be monophyletic . Within *Calomela* as defined above, there is a small group of arid zone species with elongate-cylindrical brown bodies and irridescent punctures, projecting anterior pronotal angles, simple or slightly toothed claws and large prominent teeth on the apical margin of the last ventrite. In some species of this group, described as genera (Selman 1976, 1977), the hypomeron is either strongly wrinkled or unusually smooth, with a faint or obliterated groove. These taxa are otherwise so similar to cylindrical *Calomela* species with distinct hypomeral grooves that they should also be included in this genus, as indicated by Daccordi (1994). In *Calomela relicta* Reid the hypomeral groove is shallow and may be overlooked (Reid 1989). One undescribed species from western Queensland has conspicuous epipleural setae.

The holotypes of *Calomela fugitiva* Lea and *Stethomela t-splendens* Lea have been compared and are identical (**syn. nov**.). Both were described in the same paper and the former name is hereby given seniority. The specimen of *Calomela suturalis* Jacoby from Paris examined by Selman and thereby made the basis of his redescription (1979), was not a syntype (Jacoby 1885b), but his interpretation of this species appears to have been correct.

Early authors (Baly, Chapuis, Clark, Jacoby) placed several species in 'Australica Chevrolat', an unavailable *nomen nudum*. Baly (1878) seems to have been the first to recognise the error. Other species were erroneously placed in *Chrysomela* sensu auctt., nec Linnaeus, now known as *Chrysolina* Motschulsky (Riley, Clark & Seeno 2003). All of these species have been placed elsewhere, including *Chrysomela sapphira* Fabricius, described from India, presumably misidentified from Australia by Boisduval (1835) and subsequently listed as Australian (Weise 1916a). This is a junior synonym of the European species currently known as *Oreina cacaliae* (Schrank) (Selman 1977; Bourdonné & Doguet 1991; Bienkowski 2001).

Chalcolampra Blanchard, 1853
(Fig. 33)

Type species. *Chalcolampra convexa* Blanchard, 1853, by monotypy.

Diagnostic description

Length 5–11mm; body elongate and flat, length to width ratio 2:1–2.3:1, length to height ratio 2.5:1–3:1. Head: contracted behind eyes, eyes laterally prominent; frons with or without vertical groove beside inner margin of eye; frontoclypeal suture straight or transverse V-shaped, with lateral grooves roughly M- or H-shaped, sides not abruptly ridged; gena without straight ridge and groove to accommodate antenna; antennomeres

8–10 not laterally expanded; first maxillary palpomere not flattened; apical maxillary palpomere quadrate or conical, with truncate apex; apical margin of mentum shallowly concave. Thorax: pronotum broadest at or near base or in anterior half; trichobothria present in anterior and posterior angles; pronotal disc punctate, often with irregular more strongly punctured depressions; base of pronotum with narrow raised border; hypomeron without lateral groove; anterior of prosternum without median or lateral ridges, not medially produced; prosternal process elongate, with strongly expanded apex and without a pair of right-angled lobes at base; procoxal cavity closed, or with gap less than quarter width of coxa; elytra at humeri much or slightly broader than pronotum; elytra non-tuberculate and distinctly striate, or tuberculate and non-striate; 5th stria not or variably deepened at base; elytra not extended at sides, epipleura entirely visible, gradually attenuated from base to apex; epipleuron narrow, much less than quarter width of elytral remainder; apical half of epipleura without short stiff setae; mesoventrite process narrow, elongate; anterior face of mesoventrite process gradually sloping, without defined margin, posterior margin either straight, slightly convex or concave; metepisternum without abrupt longitudinal groove, but may have line of deep punctures; metaventrite without anterior femoral plates; metaventrite process not anteriorly raised; apices of mid and hind tibia without row of teeth; tibiae without external keels; apex of third tarsomere slightly concave, rarely deeply bilobed (*C. longicornis* Lea); claws simple, or acutely toothed, or with right-angled appendiculate lobe. Abdomen: pygidium with well-defined median groove; abdominal ventrites free, smooth, without distinct punctures; apex of last ventrite truncate in male, curved in female.

Notes

This genus is widely distributed, from south-east Asia to New Zealand. Number of species: approximately 25 in Australia. Host-plants in Australia include *Senecio* (Asteraceae), *Prostanthera* (Lamiaceae) and *Parahebe* (Scrophulariaceae) (Reid 1991; Allan, Landers & Walker 2005). The larva of one species has been described (Reid 1991).

It is obvious from the key that *Chalcolampra* is weakly separated from *Phyllocharis* and the two genera should perhaps be placed in synonymy, although larvae may provide useful generic characters (Reid 1991). Underscoring this confusion, Jacoby described a species twice, once in each genus (*Chalcolampra rufipes* Jacoby (1885a), = *Phyllocharis fulvifrons* Jacoby (1898), **syn. nov**., type material compared). The Australian genera *Eulina*, *Johannica*, *Lamprolina*, *Phola* and *Promechus* plus genera in New Zealand and New Caledonia (Reid & Smith 2004), also belong in this group. Some *Chalcolampra* species (for example *C. adelioides* Lea) have simple claws, and others have a small basal angulation or sharply angled appendage on the claw (Reid 1993), therefore this genus is represented twice in the key after couplet 39. Degree of closure of the procoxal cavities is variable in this genus, but the gap is always less than quarter the coxal width (Reid 1993).

Chalcolampra may not be monophyletic as there are no obvious synapomorphies for the genus.

***Chalcomela* Baly, 1856**
(Fig. 34)

Type species. *Chalcomela illudens* Baly, 1856, this designation.

= *Cyclomela* Baly, 1856; **syn. nov**. Type species. *Cyclomela nitida* Baly, 1856, by monotypy.

= *Micromela* Baly, 1856; syn. conf. Type species. *Micromela cupripennis* Baly, 1856, by monotypy.

Diagnostic description

Length: 5–8mm; body shape: broad (length to width ratio 1.75–1.2) and convex (length to height ratio 2.8–2.0). Head: not contracted behind eyes; eyes not laterally prominent; frons with or without vertical groove beside inner margin of eye; frontoclypeal suture V-shaped or M- shaped, sides not abruptly ridged; gena without groove to accommodate antenna, but often ridged from posterior margin of eye, ridge may reach hind margin of buccal cavity (eg., *C. insignis* Baly); antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere truncate at apex, quadrate or elongate, but length <1.5x width, apex at most feebly expanded; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; pronotal disc smooth and impunctate or with scattered basal punctures; base of pronotum without margin; hypomeral groove absent; anterior of prosternum at middle not anteriorly produced, with or without elevated midline, with or without paired ridges, lateral arms without ridges; prosternal process narrow, longer than broad with angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytral tubercules absent; elytral striae present, 5th stria either deepened or not at base compared to adjacent striae; elytra not extended vertically, epipleura entirely or at least partially visible from sides; epipleuron narrow, at least <0.2x width of elytron, often strongly sinuate, gradually attenuate to apex, without setae; anterior face of mesoventrite process not abruptly elevated, posterior margin straight, or slightly concave; metepisternum without abrupt longitudinal groove, but may have line of deep punctures; anterior femoral plates absent from metaventrite; metaventrite process not or slightly raised anteriorly; mid and hind tibiae without apical row of short spines on distal surface and without obvious external keels, or 2 keels present in apical half; apex of third tarsomere not or feebly bilobed; claws simple. Abdomen: pygidial groove absent; abdominal ventrites free, without patches of large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Chalcomela is found in Australia and New Guinea. Number of species: 15 in Australia, 2 in New Guinea. Host plants: Celastraceae (*Denhamia*, *Hypsophila*, *Maytenus*, *Stackhousia*); Elaeocarpaceae (*Sloanea*); Rubiaceae (*Hodgkinsonia*). Larvae are undescribed but I have reared two species and have seen material of one more (collected

by G. Monteith). Larvae are cylindrical and moderately setose, with conspicuous dorsal sclerites. They lack dorsal glands but have prominent apicoventral pseudopoda.

Daccordi (1994) placed *Micromela* Baly as a subgenus of *Chalcomela*, without further explanation. The type species of *Chalcomela* has not been designated; I propose *C. illudens* Baly, the second species named by Baly under *Chalcomela*. This is a junior synonym of *Notoclea splendens* Macleay (**syn. nov**.), previously misplaced in *Augomela* Baly (Weise 1916a). The type species of *Micromela*, *M. cupripennis* Baly, is a senior synonym of *Stethomela purpureipennis* Lea (**syn. nov**.), which Lhoste (1934) placed in *Chalcomela*. I concur with the synonymy of *Chalcomela* and *Micromela*, but the separate subgeneric status advocated by Daccordi is not warranted. The type locality for *C. cupripennis*, Melbourne (Baly 1856), seems unlikely to be correct as all other *Chalcomela* species do not occur south of Sydney. *Cyclomela* Baly, erected for a strongly hemispherical species without any other distinguishing features, is here considered a junior synonym of *Chalcomela* (**syn. nov**.). *Micromela*, *Chalcomela* and *Cyclomela* were all erected in the same paper (Baly 1856): *Chalcomela* is given priority because it is a more familiar genus name for most Australian entomologists.

The name *Chalcomela ceccoi* Daccordi (2003b: 438) was a *lapsus calami* but has been corrected by the author to *C. ceccoae* with same author and date (Daccordi 2005a).

***Chrysolina* Motschulsky, 1860**
(Fig. 35)

Type species. *Chrysomela staphylaea* Linnaeus, 1758, by original designation (Riley, Clark & Seeno 2003).

Notes

Chrysolina is not native to Australia. It includes approximately 450 species with numerous subgenera (Bienkowski 2001), many of which are poorly defined (Bourdonné & Doguet 1991). Several species of central European *Chrysolina* were reared for release in Australia as biocontrol agents of *Hypericum perforatum* (see: F. Wilson 1943; Julien 1987). Of these, *C. quadrigemina* (Suffrian) and *C. hyperici* (Forster) are established, in south-eastern Australia (Julien & Griffiths 1998). Three species of South African *Chrysolina* were released on *Chrysanthemoides* (Asteraceae) in south-east Australia; one is currently established but which is unclear (Adair & Scott 1997; Julien & Griffiths 1998; Daccordi 2001). There is a large body of literature for *Chrysolina* outside Australia, including descriptions of the larva (Marshall 1979) and pupa (Cox 1996).

***Cyclonoda* Baly, 1878**
(Fig. 36)

Type species. *Chalcomela pilula* Clark, 1864, by original designation.

Diagnostic description

Length: 5–7mm; body shape: broadly ovate (length to width ratio 1.3) and strongly convex (length to height ratio 1.7). Head: usually deeply buried in prothorax, contracted behind eyes; eyes narrow but laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture shallow, almost truncate, without lateral ridges; gena with long and straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate-cylindrical, truncate; apical margin of mentum truncate. Thorax: pronotum broadest at base; anterior and posterior trichobothria absent; pronotal disc smooth, with dense small punctures, with or without large punctures at sides; base of pronotum with margin absent or only medially absent; hypomeral groove absent; anterior of prosternum at middle not anteriorly produced, with paired median ridges fusing anteriorly, lateral arms with sharp oblique ridges; prosternal process narrow, longer than broad with angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytral tubercules absent; elytral striae present, 5th stria not deepened at base compared to adjacent striae; elytra not extended vertically, epipleura mostly or entirely visible from sides, strongly sinuate; epipleuron moderately narrow, <0.2x width of elytron, abruptly attenuate in apical third, without setae; anterior face of mesoventrite process abruptly elevated, concave, posterior margin straight; metepisternum without longitudinal groove; anterior femoral plates absent from metaventrite; metaventrite process not raised anteriorly; mid and hind tibiae without apical row of short spines on distal surface, with sharp external keel; apex of third tarsomere not or feebly bilobed; claws simple. Abdomen: pygidial groove absent; abdominal ventrites free, without patches of large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Cyclonoda is endemic to southern Australia. Number of species: 2 described, possibly 1 undescribed. Host-plants: unknown. Immature stages: unknown.

Cyclonoda may be related to *Ethomela* and *Geomela*, sharing similarly structured head appendages and pronotum, although differing by the tarsi. The curious, obliquely cleft, clypeal structure of the male of one species was illustrated by Daccordi (1996a). There are two described species and I have seen a damaged female of what may be an additional species, from eastern Australia.

******Deuterocampta* **Chevrolat, 1836**
(Fig. 37)

Type species. Unknown.

Notes

The genus is endemic to South and Central America. A South American species of *Deuterocampta*, *D. quadrijuga* (Stål), has been released for biocontrol of the weed *Heliotropium* (Boraginaceae) in eastern Australia (Briese & Zapater 2001). *Deuterocampta quadrijuga* is similar in appearance to the Potato Beetle, *Leptinotarsa decemlineata* (Say), so far unrecorded from Australia. The larva does not seem to have been formally described.

***Diacosma* Weise, 1923**
(Fig. 38)

Type species. *Diacosma laeta* Weise, 1923, by monotypy.

Diagnostic description

Length: 6–7.5mm; body hemispherical (length to width ratio 1.2–1.3; length to height ratio 1.7–2). Head: deeply embedded in prothorax, not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture rounded, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere cylindrical; apical maxillary palpomere cylindrical, slightly elongate; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; pronotal disc smooth, finely punctured, sides with larger punctures but not in irregular punctate depressions; base of pronotum not margined; hypomeral groove present, curved parallel to edge of prothorax in anterior half of hypomeron; anterior of prosternum without lateral ridges, midline not produced; prosternal process narrow, longer than broad with angled lobes absent, apex convex, sides excavate to retain antennae; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th without groove at base, 10th deeply and strongly punctured, usually separated from elytral margin by a smooth ridge; elytra extended vertically, epipleura concealed in side view; epipleuron narrow, <0.2x width of elytron, gradually attenuated to apex, without setae; anterior face of mesoventrite process abruptly elevated, concave, posterior margin truncate; metepisternum without elongate groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae with 2 sharp longitudinal external keels; apex of third tarsomere not or feebly

bilobed; claws simple, without basal tooth. Abdomen: pygidial groove absent; abdominal ventrites free, with setiferous punctures; apex of last ventrite rounded in both sexes.

Notes

Diacosma occurs in north-eastern Australia and New Guinea. Number of species: 2 in Australia, 2 in New Guinea. Host-plants: unknown. Immature stages: unknown.

Diacosma shows affinity to *Chalcomela* and related genera, by the similar structures of the head appendages, prothorax and tarsi.

***Dicranosterna* Motschulsky, 1860**

(Fig. 39)

Type species. *Paropsis picea* Olivier, 1807, by original designation.

= *Trochalodes* Weise, 1901; **syn. nov**. Type species. *Paropsis circe* Stål, 1860, by subsequent designation (Kelly & Reid 1999: 265).

= *Paropsimelina* Daccordi 2005b: 622; **syn. nov**. Type species. *Paropsimelina alessandrae* Daccordi, 2005, by original designation.

Diagnostic description

Length: 6–13mm; body broad (length to width ratio 1.2–1.5) and convex (length to height ratio 1.7–2.6). Head: not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture V-shaped or rounded, sides not abruptly ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally flat, anterior edge straight and sharply keeled; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc with or without irregular punctate depression on each side; base of pronotum not margined; hypomeral groove absent; anterior of prosternum with 2 median ridges, or smooth, without lateral ridges, midline slightly anteriorly produced or not produced; prosternal process narrow, longer than broad with angled lobes absent, apex convex; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae absent, punctures entirely confused, without groove at base; elytra extended vertically, epipleura concealed in side view, rarely horizontal (*D. alessandrae* (Daccordi)); epipleuron attenuate to apex, moderately narrow, <0.25x width of elytron, at least apical half of epipleura with line of setae; anterior face of mesoventrite process abruptly elevated, concave, posterior margin weakly to strongly concave; metepisternum not grooved, or with irregular lateral groove formed by line of deep punctures; anterior of metaventrite, adjacent to mid coxae, with transverse row of tubercles, often two rows with groove between (tubercles weakly developed in *D. trimorpha* (Lea) and absent in *D. alessandrae*); metaventrite femoral plates absent;

metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae with 1–2 sharp longitudinal external keels; apex of third tarsomere not or feebly bilobed; claws with acute basal tooth. Abdomen: pygidial groove absent; abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite rounded in both sexes.

Notes

Dicranosterna is endemic to Australia, introduced elsewhere. Number of species: 34 described. Host-plants: Fabaceae (*Acacia*). The record for *Eucalyptus* (Jolivet and Hawkeswood 1995) is erroneous (Reid 2002c). Immature stages: pupae of two species have been described and illustrated (Reid 1992b). The larva is undescribed but I have reared seven species of *Dicranosterna*. All larvae are globular, with inconspicuous setae and a pair of dorsal glands, and lack apicoventral pseudopoda.

The genus *Trochalodes* was separated from *Dicranosterna* by small differences (Weise 1901), which are not clearly defined. The two genera share the distinctive apomorphies noted above and there is no difference in their adult and larval biology (unlike other large paropsines, both feed on *Acacia*). Larvae of both genera are globular and pupae are similar (Reid 1992b). These names are therefore placed in synonymy and almost all species listed in *Trochalodes* by Weise (1916a) are transferred to *Dicranosterna*. *Paropsis suspiciosa* Baly, placed as an unidentifiable species in Blackburn's *Paropsis* species-group II (Blackburn 1901), was listed in *Trochalodes* by Weise (1916a) but is certainly a species of *Paropsisterna* (**comb. nov**.), possibly a synonym of *P. rufobrunnea* (Blackburn). Several species described by Lea (1924) in *Paropsis* also belong to *Dicranosterna* (holotypes examined in SAM): *D. nigrosuturalis* (Lea) **comb. nov**., *D. novemlineata* (Lea) **comb. nov**., *D. subaeraria* (Lea) **comb. nov**., *D. trimorpha* (Lea) **comb. nov**. The type species of *Trochalodes* is *Paropsis circe* Stål (Kelly & Reid 1999), a senior synonym of *Paropsis pedestris* Chapuis (**syn. nov**.). *Paropsimelina* Daccordi (2005b) was inadequately distinguished from other *Paropsis*-group genera. The features described as diagnostic for *Paropsimelina* are common in *Dicranosterna*: narrow prosternal process, evenly punctate elytra, setose epipleura which are both narrow and concave, punctate metepisterna, laterally strigose metaventrite, abdominal intercoxal process narrow and not bordered. The horizontal (but concave) epipleura are approached in *D. lateralis* (Blackburn) and *D. trimorpha* (Lea), both of which have smoothly punctate metepisterna. *Paropsimelina* also has a densely setose labrum and a sharply edged first maxillary palpomere, not mentioned in the original description, furthermore the host plant is *Acacia* (specimens examined in AMS from the southern Pilbara region). *Paropsimelina* is therefore a junior synonym of *Dicranosterna* (**syn. nov**.).

Ethomela Lea, 1916
(Fig. 40)

Type species. *Ethomela decipiens* Lea, 1916, by monotypy.

Diagnostic description

Length: 3.5–7.5mm; body narrow (length to width ratio 1.8–2.3) and flat (length to height ratio 3–4). Head: abruptly contracted behind eyes, temples very short or absent, but head often deeply inserted into prothorax; eyes strongly laterally prominent; frons with or without an isolated vertical groove beside inner margin of eye; frontoclypeal suture deepened towards sides, producing a pair of lateral pits, sides not abruptly ridged; gena with short straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate cylindrical or conical; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base or middle; anterior trichobothria absent; posterior trichobothria absent; pronotal disc punctate, without deep depressions on each side; base of pronotum feebly marginate or margin absent; hypomeral groove absent; anterior of prosternum with a pair of median longitudinal ridges or without ridges, oblique lateral ridges present (rarely obliterated by punctures), middle not anteriorly produced; prosternal process usually T-shaped, stem narrow, elongate, apex abruptly expanded, basal angled lobes absent; procoxal cavity closed; elytra smooth or with numerous small tubercles (one undescribed species); elytral striae present or absent, 5th stria not or feebly deepened at base; elytra not extended vertically, epipleura entirely laterally visible, gradually attenuated; epipleuron narrow, <0.2x width of elytron, apical half with setae absent or with row of minute setae; mesoventrite process not abruptly raised, posterior margin truncate to strongly concave; metepisternum not grooved; metaventrite anterior femoral plates present; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae with or without external keels; apex of third tarsomere deeply bilobed, rarely feebly so (undescribed species); claws simple, rarely with small basal angulation or a right-angled tooth (*E. lucecca* Daccordi). Abdomen: pygidium with deep longitudinal groove; abdominal ventrites free, with large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Ethomela is endemic to Australia. Number of species: 18 described and at least 7 undescribed. Host-plants: Goodeniaceae (*Scaevola*). Immature stages: unknown. *Ethomela* species are found on the ground in native grasslands and woodland, often together with *Chalcolampra* species. The single host record (*Scaevola*) is for an unidentified species of *Ethomela* (Daccordi 2003c).

Ethomela is split in the key because all except one species have simple, untoothed,

claws. *Ethomela* has previously been confused with *Chalcolampra* (see: Matthews & Reid 2002; Daccordi 2003c). The following species hitherto in *Chalcolampra* belong in *Ethomela*: *E. adelaidae* (Blackburn) **comb. nov**., *E. arthritica* (Lea) **comb. nov**., *E. atropha* (Lea), *E. eremita* (Blackburn) **comb. nov**., *E. hursti* (Blackburn) **comb. nov**., *E. impar* (Lea) **comb. nov**., *E. luteicornis* (Erichson) **comb. nov**., *E. nana* (Weise) **comb. nov**., *E. oblonga* (Lea) **comb. nov**., *E. parvula* (Wilson) **comb. nov**., *E. podagrosa* (Lea) **comb. nov**., *E. simillima* (Baly) **comb. nov**., *E. soror* (Lea) **comb. nov**., *E. xanthorrhoeae* (Lea) **comb. nov**. There is a single undescribed species of *Ethomela* with elytral tubercles, similar to species of *Eugastromela* and *Strumatophyma*. The synonymy of *Ethomela* and *Anica* Lhoste has recently been noted (Daccordi 2005a).

***Eugastromela* Lea, 1929**
(Fig. 41)

Type species. *Eugastromela metasternalis* Lea, 1929, by original designation.

Diagnostic description

Length: 3–4mm; broad (length to width ratio 1.4) and moderately convex (length to height ratio 2.3) . Head: deeply inserted in prothorax, but abruptly contracted behind eyes, temples almost absent, eyes laterally strongly prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture deep, roughly H - shaped, or shallow, straight, sides not abruptly ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate conical; apical margin of mentum strongly transverse, apical margin bilobed or concave. Thorax: pronotum broadest at middle or base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc smooth, impunctate; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with a pair of longitudinal median ridges, without lateral ridges, middle not anteriorly produced; prosternal process quadrate, angled lobes absent, apex bilobed or truncate; procoxal cavity open, gap at least half the width of procoxa; elytra with tubercules; elytral striae present or absent, 5th stria not relatively deep at base; elytra not extended vertically, epipleura entirely laterally visible, abruptly narrowed from moderately broad basal half to apex; epipleuron <0.2x width of elytron, without setae; mesoventrite at midline reduced to transverse ridge with straight edges; metepisternum without groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without external keels; apex of third tarsomere deeply bilobed; claws simple. Abdomen: pygidial groove absent; abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite rounded in female, truncate, with or without median depression in male.

Notes

Eugastromela is endemic to south-east Australia. Number of species: 3. Host-plants: unknown. Immature stages: unknown.

Types have been examined of all described species and two are identical, reducing the total number of species in this genus to three: *E. metasternalis* Lea = *E. flavitarsis* Lea, **syn. nov**., with first name given priority. The presence of this genus in Tasmania (Lea 1929) was overlooked by Daccordi and De Little (2003).

This genus is related to *Geomela* and *Ethomela*, through the deeply bilobed third tarsomere and lack of pronotal trichobothria.

Eulina Baly, 1855

(Fig. 42)

Type species. *Eulina curtisi* Baly, 1855, by monotypy.

Diagnostic description

Length: 7–11mm; body narrow (length to width ratio >2.3) and flat (length to height ratio 4). Head: contracted behind eyes; eyes laterally prominent; frons with or without elongate vertical groove beside inner margin of eye; frontoclypeal suture M- or V- shaped, deeply grooved or laterally pitted, sides not abruptly ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 elongate, not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere transverse, quadrate or slightly elongate, apex truncate, as broad as base; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at anterior, middle or base; anterior trichobothria present; posterior trichobothria present; sides of pronotal disc with irregular punctate depressions on each side (sparsely punctured in *E. haematosticta*); base of pronotum with finely raised margin; hypomeral groove absent; anterior of prosternum without median or lateral ridges, middle broadly but slightly anteriorly produced; prosternal process narrow, longer than broad, without basal angled lobes; procoxal cavity closed; elytra at humeri much broader than pronotal base, without tubercules or with elongate slightly raised areas (*E. vittata*); elytral striae present, or absent on disc, 5th stria deep at base compared to adjacent striae; elytra not extended vertically, epipleura entirely laterally visible, gradually attenuate to apex (abruptly narrowed in *E. haemosticta*); epipleuron narrow, <0.2x width of elytron, without setae; anterior face of mesoventrite process abruptly raised, straight or convex, posterior margin strongly concave; metepisternum without groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without obvious external keels; apex of third tarsomere not or feebly bilobed; claws appendiculate, basal lobe approximately right-angled. Abdomen: pygidial groove absent; abdominal ventrites free, without patches of large setiferous punctures;

apex of last ventrite truncate (slightly sinuate) in male, rounded in female.

Notes

Eulina is endemic to eastern Australia. Number of species: 6. Host-plants include *Notelaea* (Oleaceae) and *Citriobatus* (Pittosporaceae). Lea (1898) noted host-plants for *E. curtisi* (*Clematis*) and *E. vittata* (*Dodonaea*), but both records are probably erroneous; I have repeatedly collected adults and larvae of the first only on *Citriobatus* and of the second only on *Notelaea*. *Notelaea* is also the host of *E. pulchra* Lea (personal observation). The larva is undescribed, but I have reared two species. These larvae are cylindrical, setose, and with conspicuous dorsal sclerites. They lack dorsal glands but have prominent apicoventral pseudopoda.

This genus is distinguished from similar members of the *Phyllocharis*-group (*Chalcolampra*, *Johannica*, *Lamprolina*, *Phola*, *Phyllocharis*) by the combination of abruptly raised mesoventrite process and laterally depressed pronotum. Synonymy with *Chalcolampra* (Daccordi 1994, 2005a) is rejected. The synonymy of *Phyllomela* Lhoste and *Eulina* has recently been noted (Daccordi 2005a). *Lamprolina micans* Lea and *Chalcolampra winnunga* Daccordi are species of *Eulina* (*E. micans* (Lea) **comb. nov**., *E. winnunga* (Daccordi) **comb. nov**.).

Ewanius Reid, 2002

(Fig. 43)

Type species. *Ewanius nothofagi* Reid, 2002, by original designation.

Diagnostic description

Length: 3–5mm; body moderately elongate (length to width ratio 1.5) and convex (length to height ratio 2.2). Head: contracted behind eyes, eyes laterally prominent; frons without vertical groove beside inner margin of eye; gena without straight ridge and groove to accommodate antenna; frontoclypeal suture transverse V-shaped, not laterally ridged; antennomeres 8–10 not laterally expanded; first maxillary palpomere not flattened; apical maxillary palpomere quadrate with truncate apex; apical margin of mentum truncate. Thorax: pronotum broadest at or near middle; trichobothrium present in anterior and posterior angles; sides of pronotal disc strongly punctured, punctures rarely in irregularly shaped depressions; base of pronotum without raised border; hypomeron without lateral groove; anterior of prosternum without median or lateral ridges, not medially produced; prosternal process elongate, without a pair of right-angled lobes at base; procoxal cavity open, gap at least half width of coxa; elytra non-tuberculate, with irregular striae, 5th stria not deepened at base; epipleura entirely visible in lateral view; epipleuron narrow, much less than 0.2x width of elytral remainder; apical half of epipleura without short stiff setae; anterior face of mesoventrite process evenly sloping, convex, apex truncate;

metepisternum without groove; metaventrite without anterior femoral plates; metaventrite process not anteriorly raised; apices of mid and hind tibia without row of teeth; tibiae without external keels; apex of third tarsomere truncate; claws toothed, appendiculate with almost 90 degree lobe. Abdomen: pygidium without well-defined median groove; abdominal ventrites free, smooth, without distinct punctures; apex of last ventrite truncate in both sexes.

Notes

Ewanius is endemic to Tasmania. Number of species: 1. Host-plant: *Nothofagus* (Nothofagaceae). The larva has been described (Reid 2002; Daccordi & De Little 2003).

This is a recently discovered monotypic genus, superficially similar to *Novacastria* and with the same host-pant (see: Reid 2002b; Daccordi & De Little 2003).

***Faex* Weise, 1901**

(Fig. 44)

Type species. *Paropsis notatipennis* Chapuis, 1877, by subsequent designation (Kelly & Reid 1999).

Diagnostic description

Length: 4–7mm; body broad (length to width ratio 1.5) and moderately convex (length to height ratio 3). Head: not contracted behind eyes; eyes not laterally prominent; frons without elongate vertical groove beside inner margin of eye; frontoclypeal suture rounded or V-shaped, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc punctate, sides strongly so; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with single median ridge but not anteriorly produced, lateral arms without ridges; prosternal process narrow, longer than broad, without basal angled lobes; procoxal cavity open, gap at least half the width of procoxa; elytral tubercules absent; elytral striae present , 5th stria not deep at base; elytra extended vertically, epipleura concealed from lateral view; epipleuron narrow, <0.2x width of elytron, without setae, gradually attenuate to apex; anterior face of mesoventrite process abruptly raised, straight, or almost so, posterior margin straight, or slightly concave; metepisternum deeply grooved along outer margin; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibia expanded, with row of short spines on distal surface; tibiae without external keels; apex of third tarsomere not or feebly bilobed; claws simple or acutely toothed. Abdomen: pygidial groove absent;

abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Faex is endemic to Australia. Number of species: approximately 10. Host-plants: Myrtaceae (*Baeckea*, *Kunzea*, *Leptospermum*). I have reared larvae of two species. They are cylindrical and setose, with dorsal sclerites, a pair of dorsal glands and no pseudopoda.

The spined tibial apices characteristic of *Faex* are also found in some similar-looking *Peltoschema* species, including *P. orphana* (Erichson). *Peltoschema* is separated from *Faex* by: the presence of trichobothria on the pronotal posterior angles, tibiae not abruptly expanded at apices and different host family (Fabaceae). This group of *Peltoschema* species (the *orphana* species-group) was included under *Faex* in Matthews and Reid (2002), with a note that *Faex* is probably not monophyletic (*ibid*., p13). As redefined here, monophyly of *Faex* is strongly supported, especially by the combination of spined and expanded tibiae. The difference in host-plants is also notable. The presence of male setal pads on the hind tarsi is unusual in paropsines and occurs in both *Faex* and the *orphana* species-group of *Peltoschema*, but is probably a plesiomorphy. It is also found in *Rhaebosterna*, placed in synonymy with *Faex* by Daccordi (1994), but differing by: flat prosternal anterior, absence of tibial spines, epipleura exposed or horizontal (see below). Study of larval characters will further help to resolve the separation of *Faex*, *Rhaebosterna* and *Peltoschema*.

***Geomela* Lea, 1916**

(Fig. 45)

Type species. *Geomela blackburni* Lea, 1916, by original designation.

Diagnostic description

Length: 1.0–3.5mm; body broad (length to width ratio 1.1–1.5) and convex (length to height ratio 2–3). Head: contracted behind eyes; eyes laterally prominent; frons with or without vertical groove beside inner margin of eye; frontoclypeal suture not or shallowly grooved medially, distinctly depressed on either side, producing a pair of lateral pits, not laterally ridged; gena with or without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate conical or narrowly cylindrical; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc distinctly punctate or smooth and impunctate, lateral impressions absent; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with a pair of median longitudinal ridges or without median ridges, with or without lateral ridges, middle not

anteriorly produced; prosternal process elongate, quadrate, or slightly transverse, basal angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th stria not or slightly deepened at base; elytra not extended vertically, epipleura usually entirely, rarely partially (*G. endiandrae* Daccordi), visible from sides; epipleuron narrow, <0.2x width of elytron, without setae; anterior face of mesoventrite process straight, or almost so, posterior margin straight, or almost so; metaventrite femoral plates present; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without external keels; apex of third tarsomere bilobed, usually deeply; claws simple. Abdomen: pygidium with deep longitudinal median groove; abdominal ventrites free, usually with large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Geomela is endemic to Australia. Number of species: 13 described, plus several undescribed. Host-plants: possibly Scrophulariaceae (*Parahebe*, 2 specimens); possibly Bryophyta. *Geomela* adults are generally small and ovate with dark metallic or black colour. They have commonly been collected in moss and flood refuse but there are no records of feeding. Immature stages: the mandible of a larva has been illustrated (Reid 1995). The larva is cylindrical and setose, lacks glands and has apicoventral pseudopoda.

Geomela is related to *Ethomela*, by the shared structures of head appendages, pronotum and tarsi. The genera differ primarily by the prosternal ridges and lack of closure of the procoxal cavities. The suggestion that *Geomela*, *Aphilon* Sharp and *Phaedon* Latreille form a single clade (Daccordi 1994, 1996a) can be easily rejected, as the larva of the latter is a typical member of the well-defined tribe Chrysomelini (Kimoto 1962a; Cox 1982; Takizawa 1989), whereas the larvae of *Geomela* and *Aphilon* share attributes with *Phyllocharis* (and related genera), such as lack of dorsal glands and presence of apicoventral pseudopoda.

Gibbiomela **Daccordi, 2003**
(Fig. 46)

Type species. *Gibbiomela paradoxa* Daccordi, 2003, by monotypy.

Diagnostic description

Length: 1.5–1.8mm; body broad (length to width ratio 1.2–1.5) and convex (length to height ratio 1.8). Head: deeply inserted into pronotum, contracted behind eyes, eyes laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture not or slightly grooved medially, deeply depressed on either side, producing a pair of lateral pits, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 9-11 expanded as a loose club, but not laterally

expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate conical; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc smooth and impunctate, lateral impressions absent; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with a pair of weak oblique lateral ridges and a median ridge continuous with median ridge of process (process laterally excavate for retention of antennae); prosternal process elongate, basal angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae absent (but with pigmented spots in rows), except sparsely punctured outer striae, or most striae present; 5th stria not deepened at base; elytra not extended vertically, epipleura entirely visible from sides; epipleuron narrow, <0.2x width of elytron, without setae, abruptly attenuate in apical third, not reaching elytral apex; mesoventrite process not elevated, posterior margin truncate; metepisternum not visible; metaventrite femoral plates present, triangular lobes behind mid coxae; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without external keels; apex of third tarsomere deeply bilobed; claws simple. Abdomen: pygidium with deep longitudinal median groove; abdominal ventrites free, with large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Gibbiomela is endemic to Australia (north-east Queensland). Number of species: 1. Host-plants: unknown. Immature stages: unknown.

This genus was recently described (Daccordi 2003b) for a species with greater convexity and narrower venter than any known species of *Geomela*. However its isolation as a genus may render *Geomela* paraphyletic.

Grammicomela **Lea, 1916**
(Fig. 47)

Type species. *Grammicomela quadrilineata* Lea, 1916, by original designation.

Diagnostic description

Length: 7–10mm; body moderately broad (length to width ratio 1.7) and convex (length to height ratio 2.8). Head: not or slightly contracted behind eyes, eyes slightly laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture M- or V-shaped, without lateral ridges; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere quadrate or elongate cylindrical, at most feebly expanded to truncate apex;

apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base or middle; anterior trichobothria present; posterior trichobothria present; sides of pronotal disc finely punctate, without depressions; base of pronotum without margination; hypomeral groove absent; anterior of prosternum without median or lateral ridges, middle not anteriorly produced; prosternal process narrow, longer than broad, apex truncate or rounded, base without angled lobes; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th stria shallow or deep at base; elytra not extended vertically, epipleura entirely laterally visible; epipleuron narrow, <0.2x width of elytron, gradually attenuate, without setae; mesoventrite process gradually raised, posterior margin straight; metepisternum not grooved; metaventrite femoral plates absent; metaventrite process strongly raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without obvious external keels; apex of third tarsomere not or feebly bilobed; claws appendiculate, basal lobe approximately right-angled. Abdomen: pygidial groove absent; abdominal ventrites free, without patches of large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Grammicomela is endemic to north-eastern New South Wales and south-eastern Queendland, Australia. Number of species: 1. Host-plants: *Rubus* (Rosaceae). Immature stages: undescribed but larvae have been observed in the oviducts of dissected females. These larvae are cylindrical and spinose, similar to the larvae of *Callidemum viride* Blanchard (Reid & Berti 1992).

Grammicomela is a monotypic Australian genus. It is ovo-viviparous with unusual adult and larval facies, but may possibly be an autapomorphic species of *Callidemum*. The type species was described twice in the same paper, as *G. quadrilineata* Lea and *Stethomela rara* Lea (**syn. nov**.). The latter, here considered the junior name, describes the rarer variety with dark elytra.

Hysmatodon **Reid, 2002**
(Fig. 48)

Type species. *Gastrodonta aenea* Weise, 1923, by monotypy.

Diagnostic description

Length: 6–7mm; body hemispherical (length to width ratio 1.3; length to height ratio 2–2.2). Head: not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture shallowly V-shaped, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere cylindrical; apical maxillary palpomere quadrate (female) or transverse and slightly expanded from base to

apex (male); apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; pronotal disc smooth, finely punctured, sides with larger punctures but not in irregular punctate depressions; base of pronotum not margined; hypomeral groove absent; anterior of prosternum without lateral ridges, midline strongly elevated and anteriorly produced as a quadrate lobe; prosternal process longer than broad, with angled lobes absent, apex strongly bilobed; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, numerous, approximately 17 across middle of elytron; 5th deepened at base; elytra extended vertically, epipleura concealed in side view; epipleuron moderately narrow, <0.2x width of elytron, attenuate from near base to apex, without setae; anterior face of mesoventrite process abruptly elevated, strongly convex, posterior margin shallowly concave; metepisternum without longitudinal groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines; tibiae not externally keeled; apex of third tarsomere not or feebly bilobed; claws appendiculate, with almost right-angled basal tooth. Abdomen: pygidial groove absent; abdominal ventrites free, with sparse and minute setiferous punctures; apex of last ventrite strongly serrate in both sexes.

Notes

Hysmatodon is endemic to north-eastern Australia. Number of species: 1. Host-plants: unknown genus of Sapindaceae. Immature stages: unknown.

Hysmatodon is a recent replacement name for the preoccupied name *Gastrodonta* Weise (Reid 2002a). This monotypic genus has affinities with *Chalcomela* and related genera, through the similar structure of the head appendages, prothorax and tarsi.

***Johannica* Blackburn, 1888**

(Fig. 49)

Type species. *Diphyllocera gemellata* Westwood, 1849, by monotypy.

Diagnostic description

Length: 8–12mm; body narrow (length to width ratio 2.2) and flat (length to height ratio 4). Head: contracted behind eyes; eyes laterally prominent; frons with short vertical groove beside inner margin of eye; frontoclypeal suture rounded, deeply pitted at sides, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 laterally expanded, transverse; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere quadrate, in male feebly expanded to truncate apex; apical margin of mentum concave. Thorax: pronotum broadest at or near base; anterior trichobothria present; posterior trichobothria present; pronotal disc with irregular punctate depressions on each side; base of pronotum with distinct finely

raised margin; hypomeral groove absent; anterior of prosternum without median or lateral ridges, but middle raised and anteriorly produced; prosternal process slightly elongate, apex deeply bilobed, base without angled lobes; procoxal cavity closed; elytra at humeri much broader than pronotal base, without tubercules, striae present with scattered large pits, 5th stria deep at base compared to adjacent striae; elytra not extended vertically, epipleura entirely visible in lateral view; epipleuron narrow, <0.2x width of elytron, attenuate to apex, without setae; mesoventrite process abruptly raised, anterior face convex, posterior margin strongly concave; metepisternum not deeply grooved; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without obvious external keels; apex of third tarsomere not or feebly bilobed; claws appendiculate, basal lobe approximately right-angled. Abdomen: pygidial groove absent; abdominal ventrites free, without patches of large setiferous punctures; apex of last ventrite slightly sinuate (almost truncate) in male, rounded in female.

Notes

Johannica is endemic to eastern Australia, from central New South Wales to north Queensland. Number of species: 3. Host-plants: Bignonaceae (*Pandorea*: Monteith 1991; Reid 1991). The record of *Johannica* on *Cissus* (Hawkeswood 1990) was probably due to misidentification of the host (Monteith 1991). Immature stages: the egg, larva and pupa are described (Reid 1991).

Recognition of the small genus *Johannica*, with its unique antennae, almost certainly renders at least one other *Phyllocharis*-group genus paraphyletic (probably *Eulina*), but this problem requires further research.

***Lamprolina* Baly, 1855**

(Fig. 50)

Type species. *Phyllocharis aeneipennis* Boisduval, 1835, by original designation.

Diagnostic description

Length: 6–14mm; body narrow (length to width ratio 2–2.5) and flat (length to height ratio 3.5). Head: contracted behind eyes; eyes laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture M- or H- or V- shaped, sides not ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere slightly transverse, quadrate or slightly elongate cylindrical; apical margin of mentum shallowly concave. Thorax: pronotum broadest at base, middle or apical half; anterior trichobothria present; posterior trichobothria present; sides of pronotal disc with large, irregular punctate depressions; base of pronotum with

distinct margin; hypomeral groove present or absent; anterior of prosternum with or without single median ridge, without lateral ridges, middle anteriorly produced or not; prosternal process triangular, base narrow, expanding to broad apex, as broad as long, or elongate; procoxal cavity closed, or open but gap less than a quarter the width of the procoxa; elytra without tubercules, usually with deep pits; elytral striae present or largely absent (with either punctures confused or very small), 5th stria deep at base compared to adjacent striae; elytra not extended vertically, epipleura entirely visible from sides; epipleuron narrow, <0.2x width of elytron, gradually attenuated to apex, apical half with or without line of setae; anterior face of mesoventrite process gradually raised or straight or convex, posterior margin strongly concave; metepisternum without deep elongate groove, or finely grooved along outer margin; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without external keels; apex of third tarsomere not or feebly bilobed; claws simple. Abdomen: pygidial groove absent; abdominal ventrites free, without large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Lamprolina is endemic to eastern and northern Australia. Number of species: 14. Host-plants: Pittosporaceae (*Bursaria*, *Hymenosporum*, *Pittosporum*); Winteraceae (*Tasmannia*). An undescribed species of *Lamprolina* on *Tasmannia* in north Queensland (*pers. obs*.) is the only Australian chrysomeline known to me that feeds on the plant superfamily Canellales (*sensu* Angiosperm Phylogeny Group II 2003). Immature stages: the larvae of two species have been described (Reid 1991).

Lamprolina is a distinct genus within the otherwise difficult *Phyllocharis*-group of genera. However it may be paraphyletic with regard to *Promechus* (see below). *Lamprolina micans* Lea has appendiculate claws and is similar in appearance to *Johannica*, but without the expanded antennomeres. It should be placed in *Eulina* at least until this group of genera is thoroughly revised. Some species of *Lamprolina* have apically setose epipleura, which would place them in a different tribe in the traditional classification. *Lamprolina unicolor* Jacoby was minimally described and has never been recognised in the Australian fauna despite its distinctive small size, overall green colour and dense non-striate punctures (Jacoby 1885a). Jacoby states that "all the characters agree with *Lamprolina*", but I suspect that Jacoby did not have comparable material at this early period in his taxonomic career. Detailed photographs on the web, of one of the syntypes in the Museum of Comparative Zoology (Perkins, Naskrecki & Farrell 2005), show that Jacoby redescribed the abundant European species *Gastrophysa viridula* (Degeer), as Australian. Significantly, the syntype does not possess an original collector's label from Australia and was obtained from a German collector (Jacoby 1885a). *Lamprolina unicolor* Jacoby is a junior synonym of *Gastrophysa viridula* (Degeer) (**syn. nov**.).

Novacastria Selman, in Selman & Lowman, 1983

(Fig. 51)

Type species. *Novacastria nothofagi* Selman, 1983, by original designation.

Diagnostic description

Length: 3–4mm; body broad (length to width ratio 1.5) and moderately convex (length to height ratio 2.5–3.5). Head: not or slightly contracted behind eyes; eyes not or slightly laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture feebly delineated, rounded or straight, not laterally ridged; gena with short ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere transverse or quadrate, at most feebly expanded to truncate apex; mentum almost quadrate, apical margin bilobed. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; sides of pronotal disc strongly punctured; base of pronotum feebly marginate or margin absent; hypomeral groove absent; anterior of prosternum with a pair of elevated median longitudinal ridges, without lateral ridges, middle slightly raised, not anteriorly produced; prosternal process quadrate or slightly elongate, apex truncate, base without angled lobes; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th stria not deep at base; elytra extended vertically, epipleura concealed from lateral view or middle just visible; epipleuron narrow, <0.2x width of elytron, gradually attenuated to apex, without setae; anterior face of mesoventrite process straight, or almost so, posterior margin straight, or almost so; metepisternum without longitudinal groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; all tibiae with external faces sharply keeled; apex of third tarsomere not or feebly bilobed; claws appendiculate, apex of basal lobe slightly less than 90 degrees. Abdomen: pygidial groove absent; abdominal ventrites free, with dense large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Novacastria is endemic to north-east New South Wales, Australia. Number of species: 1. Host-plants: *Nothofagus* (Nothofagaceae). Immature stages: the larva is described (Selman & Lowman 1983) and the pupa is described (Reid 1992b).

Novacastria is probably a member of the group of genera including *Paropsis* (Selman & Lowman 1983; Reid 1992b, 2002b).

Oomela Lea, 1916

(Fig. 52)

Type species. *Oomela variabilis* Lea, 1916, by original designation.

= *Nannoda* Weise, 1923; syn. conf. Type species. *Nannoda variabilis* Weise, 1923, this designation.

Diagnostic description

Length: 2–4mm; body ovate to broad (length to width ratio 1.4–2.0) and moderately to strongly convex (length to height ratio 2.0–2.6). Head: deeply inserted in prothorax, not contracted behind eyes, without temples; eyes large and strongly laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture V - shaped or obliterated, with or without lateral ridges; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate cylindrical or conical; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; pronotal disc smooth, finely punctate or impunctate, sides without depressions; base of pronotum feebly marginate or margin absent; hypomeral groove absent; anterior of prosternum with a median ridge or pair of ridges or without ridges, without lateral ridges, middle not anteriorly produced; prosternal process T-shaped or triangular, with slightly elongate stem and abruptly expanded truncate apex, approximately quadrate, angled lobes absent; procoxal cavity closed; elytra without tubercules; elytral striae present, 5th stria not or shallowly deepened at base; elytra not extended vertically, epipleura laterally visible; epipleuron narrow, <0.2x width of elytron, gradually attenuate, without setae; mesoventrite process not abruptly elevated, posterior margin straight to strongly concave; metepisternum not longitudinally grooved (but may have narrow row of punctures on outer margin); metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without sharp external keels (but apical third with 2 rounded keels in *O. trifasciata*); apex of third tarsomere not or feebly bilobed; claws appendiculate, basal lobe approximately 90 degrees. Abdomen: Pygidial groove absent; abdominal ventrites free, without large setiferous punctures; apex of last ventrite rounded in female, rounded or truncate in male, with median depression in male.

Notes

Oomela is endemic to eastern Australia. Number of species: 9 described, at least 15 seen. Host-plants: Meliaceae (*Toona*); Rutaceae (*Acronychia*); Sapindaceae (*Alectryon*). Immature stages: undescribed. I have reared two species. The larva is cylindrical and spinose, with dorsal sclerites and without dorsal glands, and apicoventral pseudopoda are present.

Daccordi (1994) placed *Oomela* and *Nannoda* Weise in synonymy, without explanation. This action is only warranted if appropriate type species are selected. The type species of *Oomela* is *O. variabilis* Lea by original designation (Lea 1916), but was not designated for *Nannoda*. I designate *N. variabilis* Weise as the type species. This species is a junior synonym of *O. variabilis* Lea (**syn. nov**.) as well as a junior homonym, and the two generic names become objective synonyms. Of the other species of *Nannoda* described by Weise, *N. bimaculata* is a junior synonym of *Oomela trimaculata* Lea (**syn. nov**.) and *N. femoralis* is a junior synonym of a species in *Tinosis* (q.v.).

Three species, *Oomela hieroglyphica* Lea, *O. picta* Lea and *O. pictipennis* Lea, are transferred to the new genus *Alfius*, one species to *Sphaerotritoma* and another species, *Oomela wollumbina* Daccordi, belongs in *Phyllocharis*. With these exclusions *Oomela* may be a monophyletic taxon.

Palaeomela Daccordi, 1996
(Fig. 53)

Type species. *Chalcolampra cribricollis* Lea, 1929, by original designation.

Diagnostic description

Length: 3–7mm; body broad (length to width ratio 1.6–1.75) but not strongly convex (length to height ratio 3.5). Head: abruptly contracted behind eyes; eyes laterally prominent; frons with or without vertical groove beside inner margin of eye; frontoclypeal suture rounded or shallowly V-shaped, laterally deepened in *P. punctifrons* (Lea), without lateral ridges; gena without ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate conical; apical margin of mentum truncate to broadly concave. Thorax: pronotum broadest at middle or base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc sparsely punctate, without depressions on each side; base of pronotum not marginate in middle third; hypomeral groove absent; anterior of prosternum without median or lateral ridges, middle not anteriorly produced; prosternal process slightly elongate, quadrate or transverse, apex truncate with lateral lobes, basal angled lobes absent; procoxal cavity closed; elytra without tubercules; elytral striae present, 5th stria not deep at base; elytra not extended vertically; epipleura entirely laterally visible, gradually attenuate to apex, narrow, <0.2x width of elytron, without setae; anterior face of mesoventrite process straight, or almost so, posterior margin straight, or almost so; metepisternum not grooved; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without short spines on distal surface; tibiae without external longitudinal keels; apex of third tarsomere deeply bilobed; claws simple. Abdomen: pygidial groove absent; abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite

rounded in female, sinuate and medially depressed or evenly convex in male.

Notes

Palaeomela is endemic to south-eastern Australia. Number of species: 2 described, plus 3 undescribed. Host-plants unknown. Immature stages: unknown

Palaeomela was recently erected (Daccordi 1996a) for a single included species, *P. cribricollis* (Lea), later redescribed with the addition of two further species originally placed in *Chalcolampra* (see: Daccordi & De Little 2003). One of these, *C. longicornis* Lea, has the bilobed third tarsomere characteristic of *Palaeomela* but differs by transverse H-shaped facial grooves and trichobothria on all pronotal angles (holotype examined). It should be treated as a small aberrant species of *Chalcolampra* (**comb. rev**.).

Paropsides **Motschulsky, 1860**

(Fig. 54)

Type species. *Paropsis duodecimpustulata* von Gebler, 1825, by original designation.

Diagnostic description (Australian species)

Length: 4–15mm; broad (length to width ratio 1.3–1.5) and moderately convex (length to height ratio 2.5–3.5). Head: not or slightly contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture curved or V-shaped, laterally smooth, without abrupt ridge; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; pronotal disc punctured, more densely at sides, but without deep depressions; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with or without a pair of median longitudinal ridges, without lateral ridges, usually anteriorly produced at middle; prosternal process narrow, elongate, with angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th stria not or slightly deepened at base; elytra extended vertically, epipleura concealed in lateral view; epipleuron narrow, <0.25x width of elytron, gradually attenuate to apex, setae absent; anterior face of mesoventrite process straight, slightly convex, or slightly concave, posterior margin straight, or slightly concave; metepisternum without (*P. umbrosa* (Chapuis)), or with shallow or deep outer groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibia without row of short spines on distal surface; tibia with or without external keels; apex of third tarsomere not or feebly bilobed; claws strongly acutely toothed. Abdomen: pygidial groove absent; abdominal ventrites free, without large

setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Paropsides occurs from eastern Asia to eastern Australia. Number of species: 20 described in Australia, at least five additional seen. Host-plants in Australia: Fabaceae (*Dillwynia*), Myrtaceae (*Acmena*, *Leptospermum*, *Syncarpia*), Sapindaceae (*Alectryon*, *Guioa*). The east Asian type species of *Paropsides* feeds on Rosaceae (Ohno 1958). The pupa of one Australian species has been described and illustrated (Reid 1992b), as well as the larva and pupa of the type species (Ohno 1958). I have reared larvae of three species. They are cylindrical and setose, with dorsal sclerites and a pair of dorsal glands, and lack apicoventral pseudopoda.

In 1994, Daccordi (1994) recognised three subgenera in *Paropsides*, which is the most widespread of the genera related to *Paropsis*. However he ignored this classification in subsequent papers, failing to indicate subgeneric placement for 11 Australian species (Daccordi 2003a, c; Daccordi & De Little 2003). The type species of the nominative subgenus is Asiatic, whereas the type species of subgenera *Aparopsis* Weise, 1908b, and *Paromela* Lhoste, 1934, are from New Guinea. I have not seen either of the latter type species. The correct placement of the Australian species requires more research.

Several species described in other genera belong to *Paropsides*, as defined above, for example: *P. calypso* (Blackburn) **comb. nov**., *P. hebe* (Blackburn) **comb. nov**. and *P. tenuicornis* (Blackburn) **comb. nov**. (from *Paropsis* via *Peltoschema*); *P. flavomarginata* (Lea) **comb. nov**. and *P. rufimana* (Lea) **comb. nov**. (from *Stethomela*); *P. gracilipes* (Blackburn) **comb. nov**. and *P. s-notata* (Lea) **comb. nov**. (from *Paropsis*). Two species, *Paropsides erudita* (Baly) and *P. nigrolineata* (Lea), were recently transferred to *Paropsides* from *Peltoschema* [as *Pyrgoides*] and *Paropsis* respectively (Daccordi 2003a; Daccordi & De Little 2003). *Paropsides erudita* (Baly) is a senior synonym of *Paropsis complicata* Blackburn (**syn. nov**.).

Paropsides belongs to the *Paropsis*-group of genera, with similar head and its appendages, prosternum, elytra, tarsi and larva. Among these genera it is defined by possession of a single attribute, a full complement of pronotal trichobothria, which is almost certainly a plesiomorphy. *Paropsides* is therefore unlikely to be monophyletic.

Paropsimorpha **Lhoste, 1934**
(Fig. 55)

Type species. *Paropsimorpha prosternalis* Lhoste, 1934, by original designation.

= *Thaumalegastra* Daccordi, 1994; **syn. nov**. Type species. *Thaumalegastra matthewsi* Daccordi, 1994, by original designation.

Diagnostic description

Length: 5.5–7.5mm; body moderately broad (length to width ratio 1.3–1.5) and convex (length to height ratio 2.5). Head: not or slightly contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture shallowly V-shaped, not laterally ridged; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere quadrate or slightly elongate cylindrical, at most feebly expanded; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; sides of pronotal disc punctate without obvious depressions; base of pronotum without margination; hypomeral groove absent, or present but shallow and with transverse grooves; anterior of prosternum without median and lateral ridges, middle not anteriorly produced; prosternal process slightly longer than broad, with truncate apex and without basal angled lobes; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th stria deep at base compared with adjacent striae; elytra not extended vertically, epipleura entirely visible from sides; base of elytra not overlapping basal angles of pronotum; epipleuron narrow, <0.2x width of elytron, abruptly narrowed just before elytral apex, without setae; anterior face of mesoventrite process abruptly raised, slightly or distinctly convex, posterior margin straight, or slightly concave; metepisternum smooth or with narrow groove along outer margin; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; external faces of tibiae with 2 longitudinal keels on apical half or these not obvious; apex of third tarsomere not or feebly bilobed; claws appendiculate, lobe small and approximately right-angled. Abdomen: pygidial groove absent; abdominal ventrites free, with moderately large setiferous punctures; apex of last ventrite trilobate in male with median depression, rounded in female, with or without median depression.

Notes

Paropsimorpha is endemic to eastern Australia. Number of species: 9. Host-plants unknown. Immature stages: unknown.

Paropsimorpha (Lhoste 1934) was erected for *P. prosternalis* Lhoste, a junior synonym of *Stethomela caudata* Baly (Daccordi 2005a). It is certainly similar to *Callidemum* (= *Stethomela*), but is a valid genus diagnosed by the characters given above. The species placed in *Thaumalegastra* (see: Daccordi 1994, 2000) are similar to *P. caudata* (Baly), except in their greater development of male secondary sexual characters. *Thaumalegastra* and *Paropsimorpha* should be placed in synonymy (**syn. nov**.). Four other described species belong in *Paropsimorpha*: *P. elegans* (Baly) **comb. nov**., from *Augomela* (= *Stethomela armiventris* Lea; **syn. nov**.); *P. ignita* (Jacoby) **comb. nov**., from *Augomela*; *P. punctifrons* (Lea) **comb. nov**., from *Calomela* via *Augomela* (Selman 1979);

P. ventralis (Lea) **comb. nov**., from *Stethomela*.

The genus might be divided into two species groups, based on presence or absence of pronotal hypomeral grooves.

***Paropsis* Olivier, 1807**

(Fig. 56)

Type species. *Paropsis obsoleta* Olivier, 1807, by subsequent designation (Selman 1963), not *Notoclea variolosa* Marsham, 1808 (Motschulsky 1860; unavailable).

= *Procrisina* Aslam, 1968; **syn. nov.** Type species. *Paropsis pictipennis* Boheman, 1859, by original designation.

Diagnostic description

Length: 5–22mm; broad (mostly length to width ratio 1.2–1.5, a few more elongate,1.8–2) and convex (length to height ratio 2–3). Head: not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture rounded or V-shaped, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc punctate, sides more strongly so, with or without punctate depressions; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with a median ridge, pair of longitudinal ridges or without ridge, without lateral ridges, middle anteriorly produced or not; prosternal process narrow, elongate, with right-angled lobes either side, rarely reduced to rounded swellings (*P. rubidipes* Blackburn); procoxal cavity open, gap at least half width of procoxa; elytra without tubercules or with scattered small low tubercles; elytral striae present or absent, 5th stria not deep at base compared to adjacent striae; elytra extended vertically, epipleura entirely concealed in lateral view, or horizontal and partially visible (*P. asper* Chapuis); epipleuron moderately broad but <0.25x width of elytron, attenuate to apex, without setae; anterior face of mesoventrite process usually deeply concave, rarely almost straight, posterior margin usually strongly concave, rarely slightly concave; metepisternum deeply grooved on outer half; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; mid and hind tibiae with at least one sharp external longitudinal keel; apex of third tarsomere not or feebly bilobed; claws sharply toothed. Abdomen: pygidial groove absent; abdominal ventrites free, without large setiferous punctures or with patch posterior to coxae; apex of last ventrite rounded in female, truncate in male.

Notes

Paropsis is native to Australia and New Guinea, introduced elsewhere. Number of species: approximately 70 in Australia, two in New Guinea. Host-plants: Myrtaceae (*Angophora*, *Eucalyptus*, *Kunzea*, *Leptospermum*, *Lophostemon*, *Melaleuca*). Records for *Acacia* (Jolivet & Hawkeswood 1995) are erroneous (Reid 1995a, 2002c). Eggs and larvae of four species have been described and illustrated (Cumston 1939; Carne 1966) and I have seen reared larvae of at least 15 species. Pupae of four species have been described (Reid 1992b; Reid & Ohmart 1989). *Paropsis atomaria* Olivier is an important eucalypt plantation pest in Australia, with more than 20 research articles in the last 30 years on various aspects of its ecology and management.

Paropsis Olivier and *Procrisina* Aslam were separated by their elytral punctation and mesoventrite structure (Weise 1901), but only the type species of *Procrisina* has the slightly elevated mesoventrite process described, and the other difference, whether the elytra are regularly or irregularly striate, is variable in related genera (for example *Paropsisterna*, *Peltoschema*). The larvae of *Paropsis* and *Procrisina* are almost identical but the host-plants (personal observation and data in ANIC) are different for *Paropsis* (on *Eucalyptus*, *Angophora*, *Melaleuca*) and the two species included in *Procrisina* (both on *Leptospermum*), although all host-plants are Myrtaceae. Synonymy of these genera (*Paropsis* = *Procrisina*, **syn. nov**.) results in a single taxon being strongly supported by the synaopomorphic presence of projections at the base of the prosternum.

Paropsis obsoleta Boisduval has not been recognised since its two-line description (Boisduval 1835: 568) and types are unknown for this species. To clear up confusion with its senior homonym, *P. obsoleta* Olivier, the two are hereby placed in synonymy (**syn. nov**.; there is nothing conflicting in the two descriptions). *Paropsis punctulata* Boisduval was ignored by Weise (1916a) and remains unidentified and unidentifiable (**nomen dubium**).

In *Paropsis asper* (host plant *Eucalyptus*, personal observation), the epipleura are exposed laterally, therefore this species appears separately in the key. Its larvae are typical of *Paropsis*. The right-angled flanges at the base of the prosternal process, diagnostic for almost all *Paropsis* species, are reduced to rounded tubercles in *P. rubidipes* Blackburn. This Tasmanian endemic has deeply excavate pronotal margins, common in *Paropsis* but absent from other genera, and typical *Paropsis* eggs and larvae (De Little 1979).

Paropsisterna **Motschulsky, 1860**

(Fig. 57)

Type species. *Notoclea sexpustulata* Marsham, 1808, by original designation.

= *Niliosoma* Motschulsky, 1860; **syn. nov**. Type species. *Paropsis testacea* Olivier, 1807, by original designation

= *Chrysophtharta* Weise, 1901; **syn. nov**. Type species. *Paropsis nobilitata* Erichson, 1842, by

subsequent designation (Kelly & Reid 1999).
= *Sterromela* Weise, 1915; **syn. nov**. Type species. *Paropsis subcostata* Chapuis, 1877, by subsequent designation (Kelly & Reid 1999).
= *Xanthogramma* Weise, 1923; **syn. nov**. Type species. *Xanthogramma pellucida* Weise, 1923, by monotypy.

Diagnostic description

Length: 3–17mm; body semicircular to elongate-ovate, (length to width ratio 1.2–1.6) and moderately to strongly convex (length to height ratio 2–3.5). Head: not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture rounded or V - shaped, without lateral ridges; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc apparently impunctate, or punctate, sides more strongly so, with or without punctate depressions on each side; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with 0, 1 or 2 longitudinal ridges at middle, without lateral ridges, middle anteriorly produced or not; prosternal process quadrate to elongate, with angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules absent; elytral striae present or absent, 5th stria not relatively deep at base; elytra extended vertically, epipleura concealed from lateral view; epipleura narrow to broad, but not more than 0.3x width of elytron, gradually attenuate to apex, apical half of epipleura with (rarely) or without line of setae; anterior face of mesoventrite process straight to slightly concave, posterior margin straight to strongly concave; metepisternum deeply grooved or excavate in outer half; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; mid and hind tibiae with at least one sharp external longitudinal keel; apex of third tarsomere not or feebly bilobed; claws acutely toothed or rarely simple (*P. interrupta*). Abdomen: pygidial groove absent; abdominal ventrites free, large setiferous punctures absent or rarely present; apex of last ventrite rounded in both sexes, or truncate in male.

Notes

Paropsisterna is native to Australia and New Guinea, introduced elsewhere. Number of species in Australia: approximately 110. Host-plants: Myrtaceae (*Acmena*, *Agonis*, *Angophora*, *Baeckea*, *Callistemon*, *Darwinia*, *Eucalyptus*, *Kunzea*, *Leptospermum*, *Melaleuca*). Records on *Acacia* (Jolivet & Hawkeswood 1995) are probably erroneous or relate to casual collecting. Eggs and larvae of three species have been described and illustrated (Cumston 1939) and I have seen reared larvae of at least 25 species. Pupae of

four species have been described (Reid 1992b). Two species, *P. agricola* (Chapuis) and *P. bimaculata* (Olivier), are significant eucalypt plantation pests, with more than 30 research papers published on their ecology and management in the last 20 years.

The genus *Paropsisterna* Motschulsky is redefined to include *Niliosoma* Motschulsky, *Sterromela* Weise, *Chrysophtharta* Weise and *Xanthogramma* Weise. The description of *Niliosoma* clearly identifies it with typical members of the later, much more feebly described, *Chrysophtharta* (see below). The description of the mesoventrite is particularly useful (Motschulsky 1860: 194). The type species, *Paropsis testacea* Olivier, was later placed in *Chrysophtharta* without comment on priority of *Niliosoma* (see: Weise 1916a). *Chrysophtharta* has since become widely used whereas the older name *Niliosoma* has been ignored. Here the issue of priority is avoided by synonymy of both *Niliosoma* (**syn. nov**.) and *Chrysophtharta* with *Paropsisterna*, but if the concept of *Chrysophtharta* was to be recognised generically again, an application to suppress *Niliosoma* might be required.

Sterromela, with four included species (Weise 1915), was distinguished from *Paropsisterna* by a single adult attribute, presence of setae on the inner margin of the epipleura. As noted elsewhere, this feature is found widely in the Australian paropsines, on *Dicranosterna* and many *Peltoschema* and *Trachymela*, and there are at least a few long setae at the base of the epipleuron in species of other genera, for example *Paropsis*. Daccordi stated that *Sterromela* species have sharp-edged proximal maxillary palpomeres (Daccordi 2003c: 465) but this is certainly not true for any of the species originally included by Weise. A sharp edged maxillary palpomere is found in one species of the *P. lignea* (Erichson) complex but differs from that of *Dicranosterna* by being incomplete, concave, and not ventrally flattened. The *Sterromela* species do not otherwise show any synapomorphies distinguishing them from *Paropsisterna*, therefore these genera are synonymised (**syn. nov**.).

Chrysophtharta is also synonymised with *Paropsisterna*, despite most species of each 'genus' having a distinct gestalt. Typical *Chrysophtharta* species show the following: adult: almost complete loss of colour after death, a broad epipleuron, a narrow and deeply excavate mesoventrite process and triangular intercoxal process of the first ventrite; pupa (Reid 1992b): single row of lateral abdominal tubercles; first-instar larva (Cumpston 1939): short setae, microtuberculate sculpture of head, large eversible glands. Typical *Paropsisterna* species show: adult: no colour loss after death, narrow epipleuron, broad and straight edged mesoventrite process, broad ventrite process; pupa (Reid 1992b): double row of lateral abdominal tubercles; first-instar larva (Cumpston 1939): setae extremely long, head without microsculpture, eversible glands small. But this pattern is blurred by 'intermediate' taxa such as *P. lignea* (Erichson) **comb. nov**. (adult with 'Paropsisterna' morphology but larva with 'Chrysophtharta' attributes), *P. aurea* (Blackburn) **comb. nov**. (adult with 'Chrysophtharta' attributes, larva similar to 'Paropsisterna'), plus *P. obliterata* (Erichson) , *P. intertincta* (Clark), *P. tigrina* (Chapuis), *P. polyxo* (Blackburn) **comb. nov**., *P. semifumata* (Blackburn) and several other species

which are not clearly placed in either genus. These `intermediate' taxa do not form a distinct group of their own.

The definition of *Chrysophtharta* has always been vague. It was erected for those colourful species which faded after death ("die in Leben prachtvoll goldgrün, smaragdgrün oder kupferroth", Weise 1901: 166) under a description of the genus *Paropsis*, but was excluded from the key to genera given in the same paper. Weise's concept of *Chrysophtharta*, elaborated simply by inclusion of many species in the Coleopterorum Catalogus (Weise 1916a), was based on Blackburn's earlier revision of *Paropsis* (see: Weise 1917). It conforms roughly to *Paropsis* species group VI subgroup III of Blackburn (1898a), with parts of subgroup V (Blackburn 1899) and species in groups I (Blackburn 1901a) and VI (Blackburn 1897). The characters used by Blackburn to distinguish his species groups (size, pronotal shape and depressions, and elytral sculpture) were poorly defined. In a recently published key (Matthews & Reid 2002), *Chrysophtharta* and *Paropsisterna* were separated polythetically, primarily by mesoventrite process shape. This was satisfactory for the South Australian fauna, but it fails when applied to the whole of Australia (see problematic species listed above). *Chrysophtharta* has never been clearly distinguished from *Paropsisterna* and the most practical solution to this problem is to place the genera in synonymy (**syn. nov**.).

Paropsisterna is a subjective senior synonym of *Xanthogramma* Weise (**syn. nov**.), which is also a junior homonym of *Xanthogramma* Schiner, 1860 (Diptera). The type species of *Xanthogramma* Weise, *X. pellucida* Weise, is a junior synonym of *Paropsis semifumata* Blackburn (**syn. nov**.), which has been placed in *Paropsisterna* (Weise 1916a; Dobrosak 2001) and *Chrysophtharta* (Daccordi 1994).

Paropsisterna interrupta (Chapuis) (**comb. nov**.) is another unusual species belonging to this group. It was hitherto placed in *Peltoschema* but lacks pronotal trichobothria. This species is unusually small and, unlike almost all other *Paropsisterna*, has simple claws. *Paropsis seminigripes* Lea belongs in this genus, as *Paropsisterna seminigripes* (Lea) (**comb. nov**.).

***Peltoschema* Reitter, 1880**
(Fig. 58)

Type species. *Peltoschema filicornis* Reitter, 1880, by monotypy.

Diagnostic description

Length: 2–8mm; body variable in shape, from short and stout (length to width ratio 1.5; length to height ratio 2.3) to elongate-oval and flattened (length to width ratio 2; length to height ratio 4.2). Head: not contracted behind eyes, strongly produced in front of eyes in some males; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; gena without straight ridge and groove to accommodate antenna;

frontoclypeal suture rounded, V-shaped or obliterated, lateral margins without ridges; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly to moderately expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria present; pronotal disc smooth, almost impunctate, or distinctly punctured, with or without punctate depressions on each side; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum without ridges or with single medial ridge, not or slightly anteriorly produced at middle; prosternal process quadrate to elongate, without angled lobes, apex rounded; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present or absent, 5th stria not deep at base, but punctures often larger; elytra extended vertically, epipleura concealed in lateral view; epipleuron moderately narrow to narrow, <0.25x width of elytron, gradually attenuate to apex, apical half with or without setae; mesoventrite process evenly or abruptly elevated, anterior face strongly concave to straight, posterior margin straight to strongly concave; metepisternum usually grooved along outer margin; metaventrite anterior femoral plates present (rarely) or absent; metaventrite process not raised anteriorly; apices of mid and hind tibia with (rarely) or without row of short spines on distal surface; tibia with or without sharp external keel; apex of third tarsomere not or feebly bilobed; claws simple or acutely toothed. Abdomen: pygidial groove absent; abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Peltoschema is endemic to Australia, introduced elsewhere. Number of species: approximately 100. Host-plants: Fabaceae (*Acacia*, *Dillwynia*, *Jacksonia*, *Oxylobium*, *Pultenaea*). Records on *Eucalyptus* (see: Jolivet & Hawkeswood 1995) are unlikely to indicate feeding. Immature stages: a short diagnosis of the larva has been published (Reid & Ślipiński 2001) and the pupae of four species have been described (Reid 1992b). One species, *P. orphana* (Erichson), is a significant acacia plantation pest (Elliott 1978).

This genus name was recently resurrected from obscurity to replace *Acacicola* Lea, ‘Pyrgoides Aslam’ (a *nomen nudum*), *Pyrgoides* Kelly and Reid (an unnecessary *nomen novem*), and *Pyrgo* Weise (a junior homonym) (Reid & Ślipiński 2001). The group is morphologically variable, compared with other paropsine genera, and may not be monophyletic (Reid & Ślipiński 2001). *Peltoschema festiva* (Chapuis) was wrongly described in that work as lacking posterior pronotal trichobothria and *P. calliope* (Blackburn) has been transferred to *Paropsides* (see: Daccordi & De Little 2003). Some species of *Peltoschema* have apically spined tibiae as in *Faex*, but without the strongly expanded tibial apices. These species were treated as *Faex* by Matthews and Reid (2002) but apart from the spines they are morphologically typical of *Peltoschema* and share the same host as most of the latter (*Acacia*). This species-group, including the economically

important pest *P. orphana* (Erichson) (Simmul & Clarke 1999) and *P. perplexa* (Chapuis) previously named in *Faex* (Matthews & Reid 2002), is therefore restored to *Peltoschema*. Some species of *Peltoschema* have apically setose epipleura (for example *P. oceanica* (Boisduval) and allies). The genus appears thrice in the key because of variation in shape of male palpi (*P. dryope* (Blackburn) and related species, with narrow apical maxillary palpomeres) and exposure of epipleura (*P. daphne* (Blackburn) and allies, with horizontal to slightly exposed epipleura).

Daccordi (1994) divided *Peltoschema* (as *Acacicola*) into three subgenera but without providing justification. Two of these subgenera are certainly synonymous as they have type species belonging to the same well-defined species-group (Reid & Ślipiński 2001). The third, *Asiparopsis* Chen, represents a single Asian species, which has also been placed in *Paropsides* and *Pyrgo*, but which I have not seen. This taxon needs to be re-examined.

Paropsis ustulata Olivier was doubtfully listed under *Pyrgo* by Weise (1916a), but this is an unidentifiable species (Blackburn 1899) and is here listed as a *nomen dubium* in its original combination. *Chrysomela carbonata* Boisduval (1835) was overlooked in Weise's checklist of *Pyrgo* species (Weise 1916a). It was described as probably a variety of *Chrysomela oceanica* Boisduval, now in *Peltoschema*, to which *C. carbonata* should be transferred, becoming *Peltoschema carbonata* (Boisduval) (**comb. nov**.). Several species of *Paropsis* described by Lea (1924) belong to *Peltoschema*, as defined above (holotypes examined in SAM): *P. caloptera* (Lea) **comb. nov**., *P. cardinalis* (Lea) **comb. nov**., *P. didyma* (Lea) **comb. nov**., *P. erythrocephala* (Lea) **comb. nov**., *P. flavoinclusa* (Lea) **comb. nov**., *P. haematosticta* (Lea) **comb. nov**., *P. immaculicollis* (Lea) **comb. nov**., *P. isolata* (Lea) **comb. nov**., *P. macrosticta* (Lea) **comb. nov**., *P. maculiventris* (Lea) **comb. nov**., *P. medioflava* (Lea) **comb. nov**., *P. mediorufa* (Lea) **comb. nov**., *P. platycephala* (Lea) **comb. nov**., *P. prosternalis* (Lea) **comb. nov**., *P. ziczac* (Lea) **comb. nov**. The recently described *Peltoschema vestalis* Daccordi & De Little (2003) is identical to *P. delicatula* (Chapuis), also described from Tasmania (**syn. nov**.).

Philhydronopa **Weise, 1901**
(Fig. 59)

Type species. *Philhydronopa subaenea* Weise, 1901, by original designation.

Diagnostic description

Length: 5–6mm; body ovate, broad (length to width ratio 1.7) and moderately convex (length to height ratio 3). Head: Not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture broadly v-shaped, lateral margins not ridged; gena with straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from

base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; pronotal disc punctate, sides more strongly so; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with single median ridge formed from fusion of ridges at sides of process (point of fusion varies), without lateral ridges, slightly anteriorly produced at middle; prosternal process narrow, elongate, apex truncate or slightly convex, without basal angled lobes; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present but punctures tiny, 5th stria not deep at base; elytra extended vertically, epipleura concealed from sides; epipleuron narrow, <0.2x width of elytron, gradually attenuate to apex, without setae; anterior face of mesoventrite process straight, or almost so, posterior margin straight, or almost so; metepisternum deeply grooved along outer margin; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae with at least one sharp longitudinal keel; apex of third tarsomere not or feebly bilobed; claws appendiculate, lobe acutely toothed. Abdomen: pygidial groove absent; abdominal ventrites free, without large setiferous punctures; apex of last ventrite rounded in both sexes.

Notes

Philhydronopa is endemic to Australia. Number of species: 1 described and 1 undescribed. Host-plants: *Atalaya*, *Heterodendrum* (Sapindaceae). Immature stages: undescribed. I have reared larvae of two species. These larvae are cylindrical and setose, have dorsal sclerites and a pair of dorsal eversible glands, and lack apicoventral pseudopoda.

Weise (1901) separated his monotypic *Philhydronopa* from *Paropsides* by slight differences in the prosternal and mesoventrite processes, but these structures vary in shape in what is currently circumscribed as *Paropsides*. However, there are consistent differences in the structure of the head capsule and male tarsi, as indicated in the key. *Philhydronopa subaenea* Weise is a junior synonym of *Paropsis aeneipennis* Chapuis (**syn. nov**.).

***Phola* Weise, 1890**

(Fig. 60)

Type species. *Phola keyserlingi* Weise, 1890, by subsequent designation (Gressitt & Kimoto 1963), a junior synonym of *Chrysomela octodecimguttata* Fabricius, 1775.

Diagnostic description (Australian species)

Length: 3.5–7mm; body narrow (length to width ratio 2) and flat (length to height ratio 3). Head: abruptly contracted behind eyes, so that temples almost non-existent and eyes

strongly laterally prominent; frons without vertical groove beside inner margin of eye; gena without straight ridge and groove to accommodate antenna; frontoclypeal suture roughly H-shaped, without ridges at sides; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate cylindrical, with truncate apex; apical margin of mentum shallowly concave. Thorax: pronotum broadest anteriorly, or at middle, or at base; anterior trichobothria present; posterior trichobothria present; pronotal disc smooth, minutely and sparsely punctate; base of pronotum with distinct margination; hypomeral groove absent; anterior of prosternum without median or lateral ridges, middle not anteriorly produced; prosternal process narrow, elongate, without angled lobes, apex truncate; procoxal cavity closed or almost so; elytra without tubercules; elytral striae present or absent on disc, but 5th stria deep at base compared to adjacent striae; elytra not extended vertically in basal half and epipleura visible from sides, but extended in apical half, concealing twisted epipleuron; epipleuron narrow, <0.2x width of elytron, abruptly attenuated at middle, evanescent before apex, without setae; mesoventrite process not abruptly elevated, posterior margin strongly concave; metepisternum smooth with narrow depressed line of punctures along outer edge; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without sharp external keels; apex of third tarsomere not or feebly bilobed; claws appendiculate, lobe acute (c60 degrees). Abdomen: pygidial groove absent; abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite rounded in female, sinuate or truncate in male.

Notes

Phola occurs throughout east and south-east Asia, the south-west Pacific, eastern and northern Australia. Number of species in Australia: 1 described, at least 3 others seen. *Phola octodecimguttata* (F.) is present in Australia despite statements to the contrary (Gressitt & Kimoto 1963). Host-plants: in Australia, Verbenaceae (*Vitex*). Immature stages: the larva has been described (Kimoto 1962b).

Phola is removed from synonymy with *Chalcolampra* (see: Daccordi 1994). It can be distinguished from all other chrysomeline genera by the twisted epipleura, but its recognition may render either *Chalcolampra* or *Phyllocharis* paraphyletic. Gressitt and Kimoto (1963) claimed differences in the meso- and metaventrites between *Phola* and *Chalcolampra* but these are not obvious in the two type species. In Australia, *Phola* species differ from *Chalcolampra* by their large eyes and almost impunctate venters, as well as the epipleura. The life-history of the single species for which there is any information is unusual amongst the Chrysomelinae: the larva uses a tube of faeces fixed to a branch as a shelter and pupates within this (Chen 1985; personal observation).

Phyllocharis Dalman, 1824

(Fig. 61)

Type species. *Chrysomela cyanicornis* Fabricius, 1801, by subsequent designation (Baly 1855), not original designation as claimed by Gressitt and Kimoto (1963).

Diagnostic description (Australian species)

Length: 4–11mm; usually narrow (length to width ratio 2–2.5) and moderately flat to convex (length to height ratio 2.5–3.5), but one species (*P. wollumbina*) short (length to width ratio 1.5) and convex (length to height ratio 2.2). Head: contracted behind eyes; eyes laterally prominent; frons with or without vertical groove beside inner margin of eye; frontoclypeal grooves usually very deep, V-, M-, H- or X-shaped, sides without ridges; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere quadrate or elongate cylindrical or conical; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at anterior, middle or base; anterior trichobothria present; posterior trichobothria present; pronotal disc punctate or impunctate, sides with or without punctured depressions; base of pronotum with distinct margination; hypomeral groove absent; anterior of prosternum without median or lateral ridges, middle not anteriorly produced; prosternal process elongate to quadrate, T-shaped, with narrow elongate stem and greatly expanded apex, basal angular lobes absent; procoxal cavity closed or narrowly open, gap less than a quarter the width of the procoxa; elytra without tubercules; elytral striae present or punctures mostly confused, 5th stria deep at base compared to adjacent striae or rarely shallowly depressed; elytra not extended vertically, epipleura entirely visible from sides, epipleuron narrow, <0.2x width of elytron, gradually attenuated, evanescent just before elytral apex, apical half without setae, or rarely setose; mesoventrite process transverse, not abruptly elevated, posterior margin strongly concave; metepisternum smooth, or with narrow outer groove (often a line of minute puctures); metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without sharp external keels; apex of third tarsomere not or feebly bilobed; claws appendiculate, basal lobe 45–90 degrees. Abdomen: pygidial groove absent; abdominal ventrites free, or rarely first two fused, without large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Phyllocharis occurs from south-east Asia to northern and eastern Australia. Number of species: about 25 in Australia. Host-plants in Australia include *Clerodendrum* (Verbenaceae) and *Solanum* (Solanaceae). Immature stages: undescribed. Larvae of a Vietnamese species are illlustrated by Jolivet & Hawkeswood (1995). I have reared three species. The larva is cylindrical and setose, with dorsal sclerites and lacking dorsal glands,

and has apicoventral pseudopoda.

Species of the genus *Phyllocharis* show great morphological diversity and the genus is therefore difficult to separate from *Chalcolampra* and allied genera. At least two species of *Phyllocharis* have apically setose epipleura, like some species of *Lamprolina* (see above) and at least one species has fused basal ventrites. *Phyllocharis* and the monotypic New Guinean genus *Phyllocharoides* Jacoby were recently placed in synonymy (Daccordi 1994) resulting in the subjective species homonymy of *P. abdominalis* Baly 1867 and *P. abdominalis* (Jacoby 1894). I concur with the generic synonymy and propose *Phyllocharis ewani* **nom. nov**. as a replacement name for the latter.

The species recently described as *Oomela wollumbina* Daccordi (2003a) differs from other members of *Oomela* by: eyes laterally projecting, with temples behind; deeply H-grooved frontoclypeus; male last maxillary palpomere short and broad; strongly punctate base of pronotum; prosternal process not laterally ridged; deep depression at elytral base; fusiform femora; anterior border of first ventrite not flattened. These are all features lacking in *Oomela* but shared with the *Phyllocharis* group of genera, particularly *Phyllocharis*. This species is best regarded as an unusual, flightless species of *Phyllocharis* (*Phyllocharis wollumbina* (Daccordi), **comb. nov**.).

Plagiodera Chevrolat, in Dejean, 1836

(Fig. 62)

Type species. *Chrysomela armoraciae* Fabricius, 1775, by subsequent designation (Motschulsky 1860); a junior homonym, the oldest available name for which is *Chrysomela versicolorea* Laicharting, 1781 (Balsbaugh & Daccordi 1987).

Diagnostic description (Australian species)

Length: 4–6mm; body almost circular (length to width ratio 1.1–1.3) and convex (length to height ratio 2–2.5). Head: slightly contracted behind eyes and eyes slightly laterally prominent, but head deeply inserted into prothorax; frons without vertical groove beside inner margin of eye; frontoclypeal suture V - shaped, angle subtended 90 degrees, lateral margins without longitudinal ridges, but angles produced sharply as lateral ridges anterior to antennal sockets; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate cylindrical, narrowed at tip; apical margin of mentum shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc sparsely punctate, without deep depressions; base of pronotum not marginate; hypomeral groove absent; prosternum without median and lateral ridges, middle not anteriorly produced; prosternal process narrow, elongate, without basal angled lobes, apex not bilobed; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules;

elytral punctures entirely confused, striae absent, without deep basal groove; elytra extended vertically, epipleura laterally concealed; epipleuron narrow, <0.2x width of elytron, gradually attenuated to apex, without setae; mesoventrite process abruptly raised, anterior margin concave, posterior margin straight, or almost so; metepisternum without groove on outer margin; metaventrite femoral plates present; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; mid and hind tibiae with one sharp external longitudinal keel; apex of third tarsomere moderately deeply bilobed, angle subtended at least 90 degrees; claws simple. Abdomen: pygidial groove absent; first two abdominal ventrites fused, with or without large setiferous punctures; apex of last ventrite rounded or truncate in both sexes.

Notes

Plagiodera is almost cosmopolitan (Biondi & Daccordi 1998). Number of species in Australia: 3. Host-plants in Australia: unknown. I found one species in large numbers on various trees in an arboretum at Atherton, Queensland, but it did not appear to be feeding on any of them. Immature stages: unknown in Australia. Larvae and pupae are described for several non-Australian *Plagiodera*, including the type species (Cox 1982, 1996; Lee 1996).

Plagiodera and allied genera were revised recently (Biondi & Daccordi 1998). The Australian species all differ slightly from the type species of *Plagiodera* as follows: margins of elytra without distinct swelling above epipleura; apex of last tarsomere without ventral teeth; first ventrite with pair of oblique ridges or triangular femoral plates. However, they are best placed in *Plagiodera* pending a phylogenetic revision of the *Chrysomela*-genus group. One of the Australian species, generally referred to by the *nomen dubium P. nitidipennis* (Boisduval), may be identical to *P. chapuisi* Jacoby, from New Guinea.

Plagiodera adults are superficially similar to *Paropsis* and related genera, but circular and depressed, with relatively small antennae, head and pronotum, and elongate-cylindrical last maxillary palpomere.

***Platymela* Baly, 1856; stat. rev.**

(Fig. 63)

Type species. *Platymela sticticollis* Baly, 1856, this designation.

= *Macelola* Selman, 1975; **syn. nov**. Type species. *Australica digglesi* Baly, 1865, by original designation.

Diagnostic description

Length: 3.5–8mm; body parallel-sided, narrow (length to width ratio 2–2.3) and flat (length to height ratio 3). Head: slightly contracted behind eyes but eyes not laterally

prominent; frons with or without elongate vertical groove to mouth beside inner margin of eye; frontoclypeal suture obliterated, rounded or V - shaped, lateral margins abruptly longitudinally ridged; gena with or without groove to accommodate antenna, this usually pubescent, also with or without ridge from eye to buccal cavity; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere quadrate, at most feebly expanded to obliquely truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base or middle; anterior trichobothria present; posterior trichobothria present; pronotal disc punctate, with or without punctate depression on each side; base of pronotum without margination; hypomeral groove absent; anterior of prosternum with or without median ridge, without lateral ridge, produced, or not, at middle; prosternal process almost triangular, quadrate to elongate, angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th stria deep at base compared to adjacent striae; elytra not extended vertically, epipleura entirely laterally visible; epipleuron narrow, <0.2x width of elytron, gradually attenuate, often evanescent before apex, without setae; mesoventrite process reduced to a thin transverse ridge, anterior straight, posterior margin straight or concave; metepimeron without lateral groove but may have large punctures in outer half; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibia without row of short spines on distal surface; tibia without external longitudinal keels; apex of third tarsomere not or feebly bilobed; claws with large, sharp and curved, basal tooth. Abdomen: pygidial groove absent; abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Platymela occurs in eastern and northern Australia, New Guinea and Timor. Number of species: 15 in Australia, 3 in New Guinea, 1 in Timor. Host-plants: Sapindaceae (*Atalaya*, *Cupaniopsis*, *Mischocarpus*). Immature stages: undescribed. I have reared larvae of three species. The larvae are cylindrical and setose, have dorsal sclerites and a pair of dorsal glands, and lack apicoventral pseudopoda.

Daccordi (1994, 2000) placed *Platymela* Baly as a subgenus of *Callidemum* Blanchard without explanation, presumably because of their shared smooth hypomera and toothed claws. This placement is rejected.

A type species has not been designated for *Platymela* Baly; I designate *P. sticticollis* Baly (1856), the first species named and best-known of the available species. The type species of *Macelola*, *Australica digglesi* Baly, is a senior synonym of *Platymela mjoebergi* Weise (**syn. nov.**). The type species of *Platymela* and *Macelola* Selman (a separate subgenus of *Callidemum* according to Daccordi) are similar as adults (as defined above) and larvae (cylindrical and setose), therefore these genera are placed in synonymy (**syn. nov**.). Adults of both species have a deep groove parallel to the inner margin of the eye,

typical of most members of this genus.

Stethomela quadripustulata Baly (1867), described from western New Guinea, belongs in this genus, as *Platymela quadripustulata* (Baly) (**comb. nov**.).

Poropteromela **Lea, 1916**
(Fig. 64)

Type species. *Poropteromela epipleuralis* Lea, 1916, by monotypy.

Diagnostic description

Length: 7–9mm; body almost circular (length to width ratio 1.1) and moderately convex (length to height ratio 3). Head: slightly contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture V - shaped, not ridged at sides; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; pronotal disc entirely strongly and densely punctate, including depression on each side; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with a pair of elevated longitudinal ridges or without ridges and without lateral ridges, but midline elevated and anteriorly produced; prosternal process narrow, longer than broad, apex almost truncate, basal angled lobes absent; procoxal cavity open, gap at least half the width of procoxa; elytral tubercules absent; elytra entirely strongly and densely punctured, striae absent, base not grooved; elytra extended vertically, epipleura laterally concealed; epipleura huge, approximately 0.4x width of elytra, evenly attenuate from middle to apex, without setae; anterior face of mesoventrite process abruptly raised, convex, posterior margin strongly concave; metepisternum smooth, without lateral groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without obvious external keels; apex of third tarsomere not or feebly bilobed; claws with large acute tooth. Abdomen: pygidial groove absent; abdominal ventrites free, without large setiferous punctures; apex of last ventrite rounded in female, truncate with shallow median depression in male.

Notes

Poropteromela is endemic to northern New South Wales. Number of species: 1. Host-plants: rainforest Myrtaceae (*Austromyrtus* or *Syzygium*). Immature stages: undescribed. I have reared the larva. It is cylindrical and setose, has dorsal sclerites and a pair of dorsal glands, and lacks apicoventral pseudopoda.

Poropteromela is an unusual and distinctive monotypic genus, but if the elytra are

ignored it is morphologically similar to *Paropsides* (head and appendages, thoracic venter, tarsi, larva).

***Promechus* Boisduval, 1835**
(Fig. 65)

Type species. *Promechus splendidus* Boisduval, 1835, this designation.

= *Aesernia* Stål, 1860; syn. conf. Type species. *Phyllocharis splendens* Guérin- Méneville, 1833, this designation (the correct date for first available use of this species name is 1833, not 1830 given by Gressitt & Hart (1974)).

Diagnostic description (Australian species)

Length: 13–18mm; body narrow (length to width ratio 2–2.3) and moderately convex (length to height ratio 3.2–4). Head: contracted behind eyes; eyes laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture semicircular or V- shaped, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere slightly transverse to quadrate; apical margin of mentum shallowly concave. Thorax: pronotum parallel-sided for most of length; anterior trichobothria present (usually multiple in each corner); posterior trichobothria present (usually multiple); sides of pronotal disc with large, irregular punctate depressions; base of pronotum with distinct but fine margin; hypomeral groove absent; anterior of prosternum with single anteriorly produced median ridge, without lateral ridges; prosternal process triangular, elongate, apically bilobed; procoxal cavity open, gap greater than half width of procoxa; elytra without tubercules, with elongate deep pits; elytral striae present, 5th stria deep at base compared to adjacent striae; elytra not extended vertically, epipleura entirely visible from sides; epipleuron narrow, <0.2x width of elytron, strongly narrowed in basal half, evanescent before elytral apex, apical half with line of setae; anterior face of mesoventrite process abruptly raised, strongly convex, posterior margin strongly concave; metepisternum not laterally grooved; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae without external keels; apex of third tarsomere not or feebly bilobed; claws simple. Abdomen: pygidial groove absent; abdominal ventrites free, without large setiferous punctures; apex of last ventrite rounded in female, truncate in male.

Notes

Promechus is found in north-eastern Australia and New Guinea. Number of species in Australia: 2 (1 undescribed). Host-plants in Australia: Araliaceae (*Polyscias*). Immature stages: Australian species undescribed. The larvae of New Guinean species were illustrated by Gressitt & Hart (1974). I have reared larvae of one Australian species and

they are similar.

Chapuis (1874) synonymised *Promechus* Chevrolat (1835) with *Aesernia*, but Chevrolat's first use of *Promechus* was an invalid *nomen nudum* and therefore this act of synonymy was not valid. *Promechus* Boisduval 1835, is the oldest available name for this taxon, but was ignored by Baly (1867) in favour of *Aesernia* Stål 1860. Weise (1916a) placed *Promechus* Boisduval and *Aesernia* in synonymy, but gave precedence to the younger name. Gressitt and Hart (1974) revised the genus and resurrected the older name for it, but failed to determine the type species. Both genera were described with two available species names. For *Promechus* Boisduval, *Promechus splendidus* Boisduval is hereby selected and for *Aesernia*, *Phyllocharis splendens* Guérin-Méneville. These species are subjective synonyms (Gressitt & Hart 1974), confirming the synonymy of the genera. One Australian species has been described three times: *P. australicus* (Jacoby) (= *P. bipunctatus* (Weise) **syn. nov**., *P. mjoebergi* (Weise) **syn. nov**.).

Promechus and *Lamprolina* are morphologically similar, including their larvae (Gressitt and Hart 1974; Reid 1991). However, adults of the former have broadly opened procoxal cavities with a posteriorly produced prosternal process, whereas the latter have closed or almost closed procoxal cavities, which means that the two genera have been placed in separate subtribes (Daccordi 1994). The degree of procoxal cavity closure is variable in this group of genera (Reid 1991, 1993), therefore their subtribal classification is artificial. Daccordi (1994) notes that *Promechus* has epipleural setae, but these are also present in some otherwise typical *Lamprolina*, for example *L. foveilatera* Lea. Both genera have similar ranges of host plants and morphologically similar larvae (Gressitt & Hart 1974; Reid 1991). The genus *Promechus* is almost certainly monophyletic but may be derived from within *Lamprolina*. For these reasons, it is tempting to place *Promechus* and *Lamprolina* in synonymy. They remain separated here, as the structure of the prosternal process seems constantly diagnostic for all species seen of the two genera.

***Pterodunga* Daccordi, 2000**

(Fig. 66)

Type species. *Pterodunga mirabile* Daccordi, 2000, by monotypy.

Diagnostic description

Length: 10–13mm; body moderately elongate (length to width ratio 1.5) and convex (length to height ratio 2.5). Head: not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture deeply M-shaped, without lateral ridges; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere cylindrical; apical maxillary palpomere quadrate (female) or transverse (male); apical margin of mentum truncate or shallowly concave. Thorax: pronotum parallel-sided most of length;

anterior trichobothria present; posterior trichobothria present; pronotal disc strongly punctured, sides with small irregular punctate depressions; base of pronotum not margined; hypomeral groove present, short and strongly curved; anterior of prosternum without lateral ridges, midline strongly elevated and anteriorly produced as a rounded lobe; prosternal process longer than broad, without angled lobes, apex strongly bilobed; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, numerous, irregular but approximately 16 across middle of elytron; 5th strial pair deepened at base; elytra not extended vertically, epipleura visible in side view; epipleuron narrow, <0.2x width of elytron, gradually attenuate to apex, without setae; mesoventrite process covered by apex of prosternal process; metepisternum narrowly laterally grooved, with line of deep punctures; metaventrite femoral plates absent; metaventrite process slightly raised anteriorly; apices of mid and hind tibiae without row of short spines; tibiae not externally keeled; apex of third tarsomere not or feebly bilobed; claws appendiculate, with almost right-angled basal tooth. Abdomen: pygidial groove absent; two basal abdominal ventrites fused, with sparse and minute setiferous punctures; apex of last ventrite simple, rounded in both sexes.

Notes

Pterodunga is endemic to north Queensland, Australia. Number of species: 1. Hostplants: Proteaceae (*Grevillea* and *Buckinghamia*). Immature stages: undescribed. I have reared larvae of this species. They are cylindrical and setose, with dorsal sclerites, lack dorsal glands and have apicoventral pseudopoda.

Pterodunga was erected for a single unusual species of rainforest chrysomeline with some affinity to *Hysmatodon* (see: Daccordi 2000) and the *Chalcomela* group of genera.

***Rhaebosterna* Weise, 1917**
(Fig. 67)

Type species. *Rhaebosterna sciola* Weise, 1917, by monotypy.

Diagnostic description

Length: 4–6mm; body broad (length to width ratio 1.4) and convex (length to height ratio 2.5). Head: not contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture obliterated or rounded, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from narrow base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc punctate, sides more strongly so; base of pronotum not marginate; hypomeral

groove absent; anterior of prosternum without median or lateral ridges, not anteriorly produced; prosternal process narrow, longer than broad, apex truncate, base without angled lobes; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercules; elytral striae present, 5th stria not deep at base; elytra not extended vertically, epipleura at least partially visible from sides, or rarely extended vertically concealing epipleura; epipleuron narrow, <0.2x width of elytron, gradually attenuated to apex, without setae; anterior face of mesoventrite process gradually raised or abruptly raised but elevated portion a short transverse ridge, posterior margin shallowly concave; metepisternum not laterally grooved but may be strongly punctate at sides; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibia without row of short spines on distal surface; tibiae without external keels; apex of third tarsomere not or feebly bilobed; claws simple or minutely toothed. Abdomen: pygidial groove absent; abdominal ventrites free, with or without large setiferous punctures; apex of last ventrite truncate in both sexes.

Notes

Rhaebosterna is endemic to southern Australia. Number of species: 3 described, at least 2 undescribed. Host-plants: Myrtaceae (*Melaleuca*, *Thryptomene*). *Rhaebosterna* is confined to the arid and semi-arid zones of southern Australia. Immature stages: undescribed. I have reared larvae of one species. The larva is cylindrical, setose and with dorsal sclerites, with a pair of dorsal glands and without apicoventral pseudopoda.

This taxon was recently placed as a subgenus of *Faex* Weise (Daccordi 1994) but restored as a valid genus by Matthews and Reid (2002), who illustrated *R. multimaculata* (Lea), a species I had earlier thought to represent an undescribed genus (Bienkowski 2001:202). All species are pale, with striate elytra, often vaguely linearly streaked, like species of *Faex* and a few *Paropsisterna*. *Rhaebosterna* differs from *Faex* by: elytral epipleura laterally visible or horizontal; tibial apices without spines. *Faex interruptofasciata* (Baly) belongs in this genus, as *Rhaebosterna interruptofasciata* (Baly) (**comb. nov**.). *Rhaebosterna* also differs only slightly from some *Peltoschema*, especially *P. calomeloides* (Lea) and *P. daphne* (Blackburn), but these species possess the posterior pronotal trichobothria characteristic of *Peltoschema*.

***Sphaerotritoma* Arrow, 1943**

(Fig. 68)

Type species. *Sphaerotritoma laeta* Arrow, 1943, by original designation.

Diagnostic description

See above.

Notes

Sphaerotritoma occurs in New Guinea and Australia. Number of species: 4 (1 in Australia). Host-plants unknown. Immature stages: unknown.

Sphaerotritoma is similar to *Oomela*, but differs by the characters listed above. It is also similar to *Geomela*, but differs by presence of pronotal trichobothria, unbilobed third tarsomere and appendiculate claws. There is at least one undescribed species from New Guinea.

***Strumatophyma* Baly, 1871**
(Fig. 69)

Type species. *Chalcolampra verrucosa* Clark, 1864, by original designation.

Diagnostic description

Length 7–10mm; body elongate and convex, length to width ratio 1.8–2, length to height ratio 2.2–2.8. Head: temples short, so head apparently not contracted behind eyes, but eyes laterally prominent; frons without vertical groove beside inner margin of eye; gena without straight ridge and groove to accommodate antenna; frontoclypeal suture shallow, curved, without branching lateral grooves, without lateral ridges; antennomeres 8–10 not laterally expanded; first maxillary palpomere not flattened; apical maxillary palpomere quadrate or transverse, with truncate apex; apical margin of mentum shallowly concave. Thorax: pronotum broadest at or near middle; trichobothria absent from anterior angles, present in posterior angles; pronotal disc punctate, with irregular strongly punctured depressions; base of pronotum without raised border; hypomeron without lateral groove; anterior of prosternum without median or lateral ridges, not medially produced; prosternal process elongate-triangular, truncate, without basal right-angled lobes; procoxal cavity open, gap more than half width of coxa; elytra tuberculate and non-striate, not strongly grooved at 5th strial base; elytra not extended at sides, epipleura entirely visible; epipleuron narrow, <0.2x width of elytral remainder, evenly attenuate, evanescent before apex, without setae; mesoventrite process not abruptly raised, apex straight or concave; metepisternum smooth, not grooved; metaventrite without anterior femoral plates; metaventrite process not anteriorly raised; apices of mid and hind tibia without row of teeth; tibiae without external keels; apex of third tarsomere slightly concave; claws simple. Abdomen: pygidium without median groove; abdominal ventrites free, smooth, without large setiferous punctures, but males with modified first two ventrites; last ventrite hollowed in both sexes, apex truncate in female, trilobate or bisinuate in male.

Notes

Strumatophyma is endemic to southern Australia. Number of species: 3 described, 1

undescribed. Host-plants unknown. Immature stages: unknown.

Strumatophyma is morphologically unusual, but superficially resembles the *Chalcolampra constricta* species-group (Reid 1993). The latter differs by many features, for example deeply grooved frons, bordered pronotal base, closed or almost closed procoxal cavities, toothed claws. However, the structures of the head, prothorax, pterothorax, legs and penis suggest that *Strumatophyma* is likely to be a member of the group of genera including *Phyllocharis* and *Chalcolampra*, not *Calomela* or *Paropsimorpha*, as proposed by Daccordi (2005c). The unusual male secondary sexual characteristics of *Strumatophyma* have been illustrated by Daccordi (1994, 2005c). There are three described (Daccordi 2005c) and at least one undescribed species.

Tinosis Weise, 1908

(Fig. 70)

Type species. *Tinosis fasciata* Weise, 1908, by monotypy.

= *Rhaebomela* Lea, 1915; syn. conf. Type species. *Rhaebomela maculata* Lea, 1915, by original designation.

Diagnostic description (Australian species)

Length: 2–6mm; body variable, from broad (length to width ratio 1.5) and moderately convex (length to height ratio 2.7), to elongate (length to width ratio 2) and relatively flat (length to height ratio 3). Head: not or slightly contracted behind eyes; eyes slightly to distinctly laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture poorly delineated, V - shaped or curved, with or without lateral ridges; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere elongate conical, with apex pointed or rarely truncate (some males); apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at base; anterior trichobothria present; posterior trichobothria present; sides of pronotal disc smooth, almost impunctate; base of pronotum not margined; hypomeral groove absent; anterior of prosternum without median or lateral ridges, middle not anteriorly produced; prosternal process flat, with or without lateral ridges, quadrate to transverse, apex slightly laterally expanded, truncate, base without angled lobes; procoxal cavity open, gap at least half the width of procoxa; elytra without tubercles; elytral striae present, 5th stria slightly deepened at base compared to adjacent striae; elytra not extended vertically, epipleura entirely visible from sides; epipleuron narrow, <0.2x width of elytron, evenly attenuate to apex or abruptly contracted just before apex, without setae; mesoventrite process not abruptly elevated, transverse, posterior margin straight, or almost so; metepisternum smooth, without lateral groove; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of

short spines; tibiae without obvious external keels; apex of third tarsomere not or feebly bilobed; claws appendiculate, basal lobe approximately right angled. Abdomen: abdominal ventrites free, not strongly punctured; pygidial groove absent; apex of last ventrite rounded in female, truncate in male.

Notes

Tinosis occurs in eastern Australia and New Guinea. Number of species: 4 described in eastern Australia, 1 in New Guinea, plus 5 undescribed species seen. Host-plants: Lauraceae (*Cryptocaria*); Myrtaceae (*Syzygium*). Immature stages: undescribed. I have reared larvae of one species. The larva is cylindrical, setose and with dorsal sclerites, lacks dorsal glands and has apicoventral pseudopoda.

Daccordi (1994) placed *Tinosis* and *Rhaebomela* Lea in synonymy, but as separate subgenera, and without explanation. I concur with the synonymy but see no justification for maintaining the names as subgenera. The synonymy produces a junior homonym for which the name *Tinosis leai* **nom. nov**. is proposed (= *Tinosis fasciata* (Lea 1915), nec Weise 1908b). Types of both *Oomela bicolor* F. E. Wilson (1921) and *Nannoda femoralis* Weise (1923) have been examined. These names are synonyms and the species belongs in *Tinosis*, as *Tinosis bicolor* (Wilson) (**comb. nov**., = *T. femoralis* (Weise) **syn. nov**.).

Trachymela **Weise, 1908**
(Fig. 71)

Type species. *Paropsis sloanei* Blackburn, 1896, by subsequent designation (Kelly & Reid 1999).
= *Chondromela* Weise, 1915; syn. conf. Type species. *Chondromela mjoebergi* Weise, 1915, by monotypy.

Diagnostic description

Length: 4–14mm; body usually semicircular (length to width ratio 1.1–1.3), rarely more elongate (length to width ratio 1.5), and convex (length to height ratio 2–2.5). Head: not or feebly contracted behind eyes; eyes not laterally prominent; frons without vertical groove beside inner margin of eye; frontoclypeal suture rounded or V - shaped, not laterally ridged; gena without straight ridge and groove to accommodate antenna; antennomeres 8–10 not laterally expanded; first maxillary palpomere ventrally convex, without sharp leading edge; apical maxillary palpomere strongly expanded from base to truncate apex; apical margin of mentum truncate or shallowly concave. Thorax: pronotum broadest at middle or at base; anterior trichobothria absent; posterior trichobothria absent; pronotal disc punctate, sides with or without punctate depressions; base of pronotum not marginate; hypomeral groove absent; anterior of prosternum with 1–2 median ridges, without lateral ridges, middle usually anteriorly produced; prosternal process narrow, elongate, without angled lobes; procoxal cavity open, gap at least half the width of

procoxa; elytra with tubercules present or absent; elytral striae absent, without deep basal groove; elytra extended vertically, epipleura entirely concealed in lateral view; epipleuron moderately broad to narrow, but <0.2x width of elytron, evenly attenuate to apex, apical half with setae present or absent; anterior face of mesoventrite process weakly to strongly concave, posterior margin straight or slightly concave; metepisternum abruptly grooved in outer half; metaventrite femoral plates absent; metaventrite process not raised anteriorly; apices of mid and hind tibiae without row of short spines on distal surface; tibiae with at least one sharp longitudinal external keel; apex of third tarsomere not or feebly bilobed; claws simple or acutely toothed. Abdomen: pygidial groove absent; abdominal ventrites free, with large setiferous punctures; apex of last ventrite rounded in both sexes or truncate in male.

Notes

Trachymela is native to Australia and New Guinea (1 undescribed species seen), introduced elsewhere. Number of species: approximately 120. Host-plants: Myrtaceae (*Angophora*, *Eucalyptus*, *Leptospermum*). The record for *Acacia* (see: Jolivet & Hawkeswood 1995) probably represents an accidental association. Immature stages: the pupa of one species has been described and illustrated (Reid 1992b). I have reared larvae of more than 12 species. These show great morphological diversity, but all are cylindrical, with a pair of dorsal glands and without apicoventral pseudopoda. Several species of *Trachymela* are eucalypt plantation pests outside Australia and a considerable literature is becoming attached to these (for example: Tribe & Cillié 1997).

Daccordi (1994) recognised two subgenera in *Trachymela* Weise, with the monotypic subgenus *Chondromela* Weise separated by possessing simple claws and epipleural setae (Weise 1915). Claw shape (Weise 1901; Reid 1992a) and epipleural pubescence (Daccordi 1994; Biondi and Daccordi 1998) are variable in many chrysomeline species-groups, and *Chondromela* is not otherwise distinguishable from *Trachymela* species, several of which have either simple claws or setose epipleura. The two names should be considered synonyms, as previously suggested (Reid 1991). *Trochalodes echo* (Blackburn) belongs in this genus, as *Trachymela echo* (Blackburn) (**comb**. **nov**.).

******Zygogramma* **Chevrolat, 1836**
(Fig. 72)

Type species. *Zygogramma lebasii* Chevrolat, 1843, by subsequent designation (*vide* Riley, Clark & Seeno 2003).

Notes

This genus is endemic to the Americas. One species, *Zygogramma bicolorata* Pallister, has been introduced to Australia from Mexico for biological control of *Ambrosia*

and *Parthenium* (Asteraceae). This species is established in northern Australia as far south as New South Wales (Julien and Griffiths 1998). The larva and pupa of *Zygogramma* have been described (Lawson 1991; Cox 1996).

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TABLE 1. Summary of new or confirmed nomenclatural changes to genera and species of Chrysomelinae in this work.

Alfius Reid, **gen. nov**.
hieroglyphicus Lea 1929: 234 (*Oomela*); Daccordi 2005a: 618 (*Paropsimorpha*); **comb. nov**.
pictus Lea 1929: 235 (*Oomela*); Daccordi 2005a: 618 (*Paropsimorpha*); **comb. nov**.
pictipennis Lea 1929: 235 (*Oomela*); **comb. nov**.
Callidemum Blanchard 1853: 325
= *Clidonotus* Chapuis 1874: 414; **syn. nov**.
gibbosum Baly 1862: 25 (*Australica* sg. *Stethomela*); **comb. nov**.
Calomela Hope 1840: 166
= *Callimela* Agassiz 1846: 533; unnecessary emendation of *Calomela* Hope
fugitiva Lea 1903: 405 (*Calomela*)
= *t-splendens* Lea 1903: 415 (*Stethomela*); **syn. nov**.
Chalcomela Baly 1856: 258
= *Cyclomela* Baly 1856: 257; **syn. nov**.
cupripennis Baly 1856: 261 (*Micromela*)
= *purpureipennis* Lea 1916: 408 (*Stethomela*); **syn. nov**.
nigricollis Lea 1916: 413 (*Cyclomela*); **comb. nov**.
nitida Baly 1856: 257 (*Cyclomela*); **comb. nov**.
splendens Macleay 1826: 452 (*Notoclea*); Blackburn 1901b: 131 (*Augomela*); **comb. nov**.
= *illudens* Baly 1856: 259 (*Chalcomela*); **syn. nov**.
Chalcolampra Blanchard 1853: 328
longicornis Lea 1929: 236 (*Chalcolampra*); Daccordi & De Little 2003: 346 (*Palaeomela*); **comb. rev**.
rufipes Jacoby 1885a: 225 (*Chalcolampra*)
= *fulvifrons* Jacoby 1898: 366 (*Phyllocharis*); **syn. nov**.
Dicranosterna Motschulsky 1860: 193
= *Trochalodes* Weise 1901: 167; **syn. nov**.
= *Paropsimelina* Daccordi 2005b: 622; **syn. nov**.
abdominalis Chapuis 1877: 71 (*Paropsis*); Weise 1916a: 153 (*Trochalodes*); **comb. nov**.
alessandrae Daccordi 2005b: 623 (*Paropsimelina*); **comb. nov**.
bicolor Daccordi 2003b: 417 (*Trochalodes*); **comb. nov**.
bipuncticollis Chapuis 1877: 70 (*Paropsis*); Weise 1901: 167 (*Trochalodes*, *bipunctata* [sic]); **comb. nov**.
circe Stål 1860: 464 (*Paropsis*); Weise 1901: 167 (*Trochalodes*); **comb. nov**.
= *pedestris* Chapuis 1877: 71; (*Paropsis*); **syn. nov**.
coccinelloides Olivier 1807: 601, plate 1 (*Paropsis*); Weise 1916a: 153 (*Trochalodes*); **comb. nov**.
contracta Chapuis 1877: 70 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
echo Blackburn 1901a: 190 (*Paropsis*), 187; Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
globata Chapuis 1877: 71 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
globulosa Chapuis 1877: 71 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
hastata Chapuis 1877: 72 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
hemisphaerica Chapuis 1877: 71 (*Paropsis*); Weise 1908a: 7 (*Trochalodes*); **comb. nov**.
lateralis Blackburn 1894: 201 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.

limbata Weise 1917: 128 (*Trochalodes*); **comb. nov**.
mimula Blackburn 1890: 142 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
ngarinmana Daccordi 2003c: 469 (*Trochalodes*); **comb. nov**.
nigrosuturalis Lea 1924: 526 (*Paropsis*); **comb. nov**.
novemlineata Lea 1924: 528 (*Paropsis*); **comb. nov**.
palmensis Blackburn 1901a: 189 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
prolixa Weise 1917: 128 (*Trochalodes*); **comb. nov**.
rubeola Chapuis 1877: 71 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
selene Blackburn 1901a: 193 (*Paropsis*), 188; Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
stali Chapuis 1877: 70 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.
subaeraria Lea 1924: 527 (*Paropsis*); **comb. nov**.
trimorpha Lea 1924: 529 (*Paropsis*); **comb. nov**.
umbrata Chapuis 1877: 70 (*Paropsis*); Weise 1901: 167 (*Trochalodes, umbrosa* [sic]); **comb. nov**.

Ethomela Lea 1916: 425
adelaidae Blackburn 1889: 479 (*Chalcolampra*); **comb. nov**.
arthritica Lea 1903: 385 (*Chalcolampra*); **comb. nov**.
atropha Lea 1903: 386 (*Chalcolampra*); **comb. nov**.
gyrata Lea 1903: 388 (*Chalcolampra*); **comb. nov**.
hursti Blackburn 1889: 480 (*Chalcolampra*); **comb. nov**.
impar Lea 1903: 385 (*Chalcolampra*); **comb. nov**.
luteicornis Erichson 1842: 231(*Chrysomela* sg. *Phaedon*); Blackburn 1889: 480 (*Chalcolampra*); **comb. nov**.
nana Weise 1908a: 10 (*Chalcolampra*); **comb. nov**.
oblonga Lea 1903: 387 (*Chalcolampra*); **comb. nov**.
parvula Wilson 1921: 40 (*Chalcolampra*); Oke 1932: 168 (*Geomela*); **comb. nov**.
podagrosa Lea 1903: 388 (*Chalcolampra*); **comb. nov**.
simillima Baly 1855: 185 (*Chalcolampra*); **comb. nov**.
soror Lea 1903: 386 (*Chalcolampra*); **comb. nov**.
xanthorrhoeae Lea 1903: 387 (*Chalcolampra*); **comb. nov**.

Eugastromela Lea 1929: 237
metasternalis Lea 1929: 237
= *flavitarsis* Lea 1929: 238; **syn. nov**.

Eulina Baly 1855: 180
micans Lea 1903: 393 (*Lamprolina*); **comb. nov**.
winnunga Daccordi 2003b: 456 (*Chalcolampra*); **comb. nov**.

Grammicomela Lea 1916: 424
quadrilineata Lea 1916: 424 (*Grammicomela*)
= *rara* Lea 1916: 409 (*Stethomela*); **syn. nov**.

Oomela Lea 1916: 398
= *Nannoda* Weise 1923: 79

trimaculata Lea 1916: 432 (*Oomela*)
=*bimaculata* Weise 1923: 80 (*Nannoda*); **syn. nov**.
variabilis Lea 1916: 431 (*Oomela*)
= *variabilis* Weise 1923: 79 (*Nannoda*); **syn. nov**.

Paropsides Motschulsky 1860: 192
calypso Blackburn 1898b: 679 (Paropsis); Weise 1916a: 172 (*Pyrgo*); **comb. nov**.

erudita Baly 1862: 24 (*Australica*); Weise 1916a: 193 (*Calomela*); Selman 1979: 581 (*Pyrgoides*); Daccordi 2003a: 398 (*Paropsides*)
= *complicata* Blackburn 1898b: 673 (*Paropsis*); Weise 1916a: 175 (*Pyrgo*); **syn. nov**.
flavomarginata Lea 1916: 410 (*Stethomela*); **comb. nov**.
gracilipes Blackburn 1898a: 249 (*Paropsis*); Weise 1916a: 163 (*Paropsisterna*); **comb. nov**.
hebe Blackburn 1898b: 677 (*Paropsis*); Weise 1916a: 172 (Pyrgo); Lea 1924: 536 (*Paropsis*); **comb. nov**.
rufimana Lea 1915: 517 (*Stethomela*); **comb. nov**.
s-notata Lea 1924: 527 (*Paropsis*); **comb. nov**.
tenuicornis Blackburn 1896: 672 (*Paropsis*); Weise 1916a: 175 (*Pyrgo*); **comb. nov**.

Paropsimorpha Lhoste 1934: 357
= *Thaumalegastra* Daccordi 1994: 82; **syn. nov**.
[= *Gastromela* Daccordi 1994: 83, *nomen nudum*]
elegans Baly 1856: 256 (*Augomela*); **comb. nov**.
= *armiventris* Lea 1929: 228 (*Stethomela*); **syn. nov**.
ignita Jacoby 1898: 368 (*Augomela*); **comb. nov**.
lawrencei Daccordi 2000: 198 (*Thaumalegastra*); **comb. nov**.
matthewsi Daccordi 1994: 82 (*Thaumalegastra*); **comb. nov**.
mirogaster Lea 1929: 227 (*Stethomela, mirogastra* [sic]); **comb. nov**.
monteithi Daccordi 1994: 82 (*Thaumalegastra*); **comb. nov**.
punctifrons Lea 1903: 405 (*Calomela*); Selman 1979: 581 (*Augomela*); **comb. nov**.
ventralis Lea 1929: 229 (*Stethomela*); **comb. nov**.

Paropsis Olivier 1807: 596
= *Procrisina* Aslam 1968: 129; **syn. nov**.
obsoleta Olivier 1807: 600 (*Paropsis*)
= *obsoleta* Boisduval 1835: 568 (*Paropsis*); **syn. nov**.

Paropsisterna Motschulsky 1860: 192
= *Niliosoma* Motschulsky 1860: 194; **syn. nov**.
= *Chrysophtharta* Weise 1901: 165; **syn. nov**.
= *Sterromela* Weise 1915: 436; **syn. nov**.
= *Xanthogramma* Weise 1923: 63; **syn. nov**.
agricola Chapuis 1877: 75 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
albicans Chapuis 1877: 80 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
ambigua Daccordi 2003c: 486 (*Chrysophtharta*); **comb. nov**.
amica Newman 1842: 415 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); Weise 1916b: 30 (validity); **comb. nov**.
amoena Clark 1865: 405 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); Weise 1916b: 31 (validity); **comb. nov**.
annularis Blackburn 1899: 509 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
atalanta Blackburn 1898a: 261(*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
aurea Blackburn 1899: 497 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
basalis Chapuis 1877: 76 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
bimaculata Olivier 1807: 600 (*Paropsis*; Australia); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
captiosa Clark 1865: 406 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
cassidoides Boisduval 1835: 570 (*Paropsis*; Australia); Weise 1901: 166 (*Chrysophtharta*); **comb. nov**.

cernua Chapuis 1877: 81 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
chlorotica Olivier 1807: 604 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
citrina Chapuis 1877: 79 (*Paropsis*); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
cloelia Stål 1860: 464 (*Paropsis*; Australia); Weise 1916a: 163 (*Chrysophtharta*); **comb. nov**.
coccineipennis Weise 1916b: 31 (*Chrysophtharta*); **comb. nov**.
conferta Chapuis 1877: 81 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); Weise 1916b: 30 (validity); **comb. nov**.
crocata Boisduval 1835: 564 (*Paropsis*; Australia); Weise 1901: 166 (*Chrysophtharta*); **comb. nov**.
debilis Chapuis 1877: 80 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
decolorata Chapuis 1877: 81 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
deflorata Chapuis 1877: 79 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
fastidiosa Chapuis 1877: 81 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
flaveola Chapuis 1877: 80 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
flavolimbata Daccordi 2003b: 432 (*Chrysophtharta*); **comb. nov**.
geniculata Boisduval 1835: 567 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
gloriosa Blackburn 1899: 510 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
hectica Boisduval 1835: 569 (*Paropsis*); Weise 1901: 164 (*Chrysophtharta*); **comb. nov**.
inconstans Blackburn 1899: 502 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
insignita Newman 1842: 414 (*Paropsis*); Weise 1915: 436 (*Sterromela*); **comb. nov**.
interlita Newman 1842: 414 (*Paropsis*); Weise 1915: 436 (*Sterromela*); **comb. nov**.
interrupta Chapuis 1877: 84 (*Paropsis*); Weise 1916a: 175 (*Pyrgo*); **comb. nov**.
interstitialis Chapuis 1877: 80 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
io Blackburn 1898a: 260 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
laesa Germar 1848: 235 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
lignea Erichson 1842: 227 (*Paropsis*); Weise 1916a: 164 (*Chrysophtharta*); **comb. nov**.
maculicollis Clark 1865: 407 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
m-fuscum Boheman 1859: 174 (*Paropsis*); Weise 1901: 166 (*Chrysophtharta*); **comb. nov**.
minerva Blackburn 1899: 494 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
nobilitata Erichson 1842: 228 (*Paropsis*); Weise 1901: 166 (*Chrysophtharta*); **comb. nov**.
obovata Chapuis 1877: 78 (*Paropsis*); Weise 1901: 166 (*Chrysophtharta*); **comb. nov**.
pallida Olivier 1807: 602 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
philomela Blackburn 1901: 194 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); Selman 1983: 333 (*Chrysophtharta*); **comb. nov**.
pictipes Chapuis 1877: 68 (*Paropsis*); Weise 1901: 166 (*Chrysophtharta*); **comb. nov**.
polyxo Blackburn 1901: 192 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); Daccordi 2003: 381 (*Chrysophtharta*, *polixo* [*sic*]); **comb. nov**.
proxima Chapuis 1877: 80 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
purpureoaurea Clark 1865: 407 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
raucicollis Blackburn 1899: 501 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
rufescens Chapuis 1877: 83 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
semifumata (Blackburn 1901a: 195; *Paropsis*); Weise 1916a: 163 (*Paropsisterna*)
= *pellucida* (Weise 1923: 63; *Xanthogramma*); **syn. nov**.
seminigripes Lea 1924: 535 (*Paropsis*); **comb. nov**.
simsoni Blackburn 1899: 500 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
subcostata Chapuis 1877: 75 (*Paropsis*); Weise 1915: 436 (*Sterromela*); **comb. nov**.
suspiciosa Baly 1864: 297 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.

tenella Chapuis 1877: 83 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
testacea Olivier 1807: 602, plate 1 (*Paropsis*); Motschulsky 1860: 194 (*Niliosoma*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
trimaculata Chapuis 1877: 76 (*Paropsis*); Weise 1915: 436 (*Sterromela*); **comb. nov**.
variicollis Chapuis 1877: 82 (*Paropsis*); Weise 1916a: 165 (*Chrysophtharta*); **comb. nov**.
vittata Blackburn 1899: 508 (*Paropsis*); Weise 1917: 133 (*Chrysophtharta*); **comb. nov**.

Peltoschema Reitter 1880: 4
caloptera Lea 1924: 540 (*Paropsis*); **comb. nov**.
carbonata Boisduval 1835: 580 (*Chrysomela*); **comb. nov**.
cardinalis Lea 1924: 532 (*Paropsis*); **comb. nov**.
delicatula Chapuis 1877: 78 (*Paropsis*); Weise 1901: 171 (*Pyrgo*); Hunt, Gullan & Reid 1996: 86 (*Pyrgoides*); Reid & Ślipiński 2001: 332 (*Peltoschema*)
= *vestalis* Daccordi & De Little 2003: 360–362 (*Peltoschema*); **syn. nov**.
didyma Lea 1924: 533 (*Paropsis*); **comb. nov**.
erythrocephala Lea 1924: 539 (*Paropsis*); **comb. nov**.
flavoinclusa Lea 1924: 537 (*Paropsis*); **comb. nov**.
haematosticta Lea 1924: 531 (*Paropsis*); **comb. nov**.
immaculicollis Lea 1924: 534 (*Paropsis*); **comb. nov**.
isolata Lea 1924: 531 (*Paropsis*); **comb. nov**.
macrosticta Lea 1924: 540 (*Paropsis*); **comb. nov**.
maculiventris Lea 1924: 544 (*Paropsis*); **comb. nov**.
medioflava Lea 1924: 532 (*Paropsis*); **comb. nov**.
mediorufa Lea 1924: 539 (*Paropsis*); **comb. nov**.
orphana Erichson 1842: 229 (*Paropsis*); Weise 1901: 171 (*Pyrgo*); Reid & Ślipiński 2001: 333 (*Peltoschema*); **comb. rev**.
perplexa Chapuis 1877: 73 (*Paropsis*); Weise 1901: 171 (*Pyrgo*); Reid & Ślipiński 2001: 331 (*Peltoschema*, by inference); Matthews & Reid 2002: 47 (*Faex*); **comb. rev**.
platycephala Lea 1924: 543 (*Paropsis*); **comb. nov**.
prosternalis Lea 1924: 538 (*Paropsis*); **comb. nov**.
ziczac Lea 1924: 541 (*Paropsis*); **comb. nov**.

Philhydronopa Weise 1901: 166
aeneipennis Chapuis 1877: 82 (*Paropsis*); Weise 1901: 171 (*Philhydronopa*);
= *subaenea* Weise 1901: 170–1 (*Philhydronopa*); **syn. nov**.

Phyllocharis Dalman 1824: 20
ewani Reid, **nom. nov**.
= *abdominalis* Jacoby 1894: 286 (*Phyllocharoides*); Daccordi 1994: 77 (*Phyllocharis*)
wollumbina (Daccordi 2003a: 387; *Oomela*); **comb. nov**.

Platymela Baly 1856: 241
= *Macelola* Selman 1975: 65; **syn. nov**.
bimaculiceps Lea 1915: 509 (*Calomela*); Selman 1975: 65 (*Macelola*); **comb. nov**.
cephalotes Lea 1903: 407 (*Calomela*); Selman 1975: 65 (*Macelola*); **comb. nov**.
digglesi Baly 1865: 34 (*Australica*); **comb. nov**.
= *mjoebergi* Weise 1923: 76 (*Platymela*); **syn. nov**.
flavescens Blackburn 1890b: 354 (*Calomela*); Selman 1975: 65 (*Macelola*); **comb. nov**.
flavida Lea 1929: 226 (*Calomela*); Selman 1975: 65 (*Macelola*); **comb. nov**.
hasenpuschi Daccordi 2000: 194 (*Callidemum* sg. *Platymela*); **comb. nov**.
maculiceps Lea 1929: 226 (*Calomela*); Selman 1975: 65 (*Macelola*); **comb. nov**.

monochromatea Lea 1903: 406 (*Calomela*); Selman 1975: 65 (*Macelola*); **comb. nov**.
quadripustulata Baly 1867: 294 (*Stethomela*); **comb. nov**.
transversa Baly 1863: 621 (*Australica*); Weise 1916a: 194 (*Calomela*); Selman 1975: 65 (*Macelola*); **comb. nov**.

Promechus Boisduval 1835: 585
australicus Jacoby 1887: 300 (*Aesernia*); Gressitt & Hart 1974: 265 (*Promechus*)
= *bipunctatus* Weise 1923: 60 (*Aesernia*); Gressitt & Hart 1974: 280 (*Promethatus* [sic]); **syn. nov**.
= *mjoebergi* Weise 1923: 59 (Aesernia); Gressitt & Hart 1974: 280 (*Promethus* [sic]); **syn. nov**.

Rhaebosterna Weise 1917: 124
interruptofasciata Baly 1863: 620 (*Australica*); Weise 1916a: 193 (*Calomela*); Selman 1979: 581 (*Faex*); **comb. nov**.

Sphaerotritoma Arrow 1943: 395 (Erotylidae);
coccinelloides Lea 1917: 577 (*Oomela*); **comb. nov**.
nigripennis Baly 1867: 297 (*Chalcomela*); **comb. nov**.
= *laeta* Arrow 1943: 395 (*Sphaerotritoma*); **syn. nov**.

Tinosis Weise 1908b: 313
bicolor F. E. Wilson 1921: 39–40 (*Oomela*); **comb. nov**.
= *femoralis* Weise 1923: 80–1 (*Nannoda*); **syn. nov**.
leai Reid, this work, **nom. nov**.
= *fasciata* Lea 1915: 514 (*Rhaebomela*), nec Weise 1908b

Trachymela Weise 1908a: 7
echo Blackburn 1901: 190 (*Paropsis*); Weise 1916a: 154 (*Trochalodes*); **comb. nov**.

Taxa excluded from the Australian fauna

Gastrophysa Chevrolat, in Dejean, 1836: 405
viridula Degeer 1775: 311 (*Chrysomela*)
= *unicolor* Jacoby 1885a: 225 (*Lamprolina*); **syn. nov**.

Nomina dubia

(i) Genera

Paropsipacha Motschulsky 1860: 192

(ii) Species

Paropsipacha metallica Motschulsky 1860: 192, footnote
Paropsis punctulata Boisduval 1835: 571
Paropsis ustulata Olivier 1807: 603, plate 1

Lapsus calami

Nomenclaturally significant errors in taxonomic works are listed above. The following *lapsus calami* are not significant except in providing further confusion for accurate cataloguing, as errors of sufficient magnitude to suggest that they are overlooked available names. The erroneous name is followed by its reference and an attempted identification of the intended name, where possible, with current valid name if different.

Australica irrorata Baly: Clark 1865: 416; (= unknown species name)
Grammicomela lineata Lea: Daccordi 2003a: 383–4; (= *Grammicomela quadrilineata* Lea)

Paropsides nigromaculata (Lea): Daccordi 2003a: 393; (?= *Paropsides nigrolineata* (Lea))
Paropsimorpha hieroglyphica (Lea 1910 [sic]): Daccordi 2003a: 382; (?= either *Phyllocharis hieroglyphica* Lea 1903, or *Oomela* [now *Alfius*] *hieroglyphica* Lea 1929)
Paropsis capitosa Marsham: Hawkeswood 1988: 102; (?= *Paropsis captiosa* Clark, now *Paropsisterna*)
Paropsis marmorata Olivier: Walker 1905: 26; (= *Paropsis marmorea* Olivier)
Paropsis quadrinotata Blackburn: Lea 1924: 533; (= *Paropsis quadrizonata* Blackburn, now *Peltoschema*)
Paropsis subseriata: Blackburn 1899: 521; (?= *Paropsis subcincta* Blackburn, now *Trachymela*)
Paropsisterna testaceipes Blackburn: Weise 1916a: 160; (= *Paropsisterna testaceiceps* Blackburn)
Phyllocharis melanocephala Baly: Lea 1903: 398; (?= *Phyllocharis melanospila* Baly)
Phyllocharis ochroleuca Baly: Daccordi 2003a: 382; (= unknown species name)
Phyllocharis prope biceps Lea: Daccordi 2003a: 382; (= *Phyllocharis biceps* Lea)
Procrisina punctipennis (Blackburn 1897): Daccordi 2003a: 382; (?= either *Procrisina*[now *Paropsis*] *pictipennis* (Boheman 1859) or *Trachymela punctipennis* (Blackburn 1897))
Stethomela parvicollis Jacoby: Hawkeswood & Takizawa 2002: 248; (?= *Stethomela fulvicollis* Jacoby)
Trachymela distigma (Blackburn): Weise 1916b: 33; (= *Trachymela stigma* Blackburn)
Trochalodes bipunctata (Chapuis): Weise 1901: 167; (= *Trochalodes* [now *Dicranosterna*] *bipunctcollis* (Chapuis))
Trochalodes umbrosa (Chapuis): Weise 1901: 167; (= *Trochalodes* [now *Dicranosterna*] *umbrata* (Chapuis))