

A review of burrower bugs of the Australian Region, with a discussion  
on the distribution of the genera\*  
(Hemiptera: Heteroptera: Cydnidae)

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**ABSTRACT.** Members of the family *Cydnidae* of the Australian Region are briefly reviewed, and assigned to proper genera, based on the examination of type-material; altogether 78 species of 19 genera are recognised. *Geobia fallax* MONTROUZIER, 1858, and *Adrisa binotata* (WALKER, 1867) are treated as nomina dubia. *Pangaeus scotti* SIGNORET, 1882, *P. douglasi* SIGNORET, 1882 and *Cephalocteus melolonthoides* SCHIÖDTE, 1843 are regarded as erroneously recorded from the studied area. *Alonips papuanus* n. sp. (Papua New Guinea), *Cydnocoeus* n. gen. (for *Choerocydnus nigrosignatus* BUCHANAN WHITE), and *Eulonips* n. gen. (for *Alonips pilylylus* SIGNORET and *Geotomus niger* SIGNORET) are described. Lectotypes are designated for twenty two species. The following synonymies are proposed: *Geotomus lansbergi* SIGNORET, 1883 = *Macroscytus australis* (ERICHSON, 1842); *Hiverus aeneus* SIGNORET, 1883 = *Choerocydnus foveolatus* WHITE, 1841, *Moonta* DISTANT, 1911 = *Geotomus* MULSANT & REY, 1866. New combinations: *Hiverus ochraceus* DISTANT = *Byrsinus ochraceus* (DISTANT); *Choerocydnus nigrosignatus* BUCHANAN WHITE = *Cydnocoeus nigrosignatus* (BUCHANAN WHITE); *Geotomus niger* SIGNORET = *Eulonips niger* (SIGNORET); *Alonips pilylylus* SIGNORET = *Eulonips pilylylus* (SIGNORET); *Moonta alexandria* DISTANT = *Geotomus alexandria* (DISTANT) are proposed. All the genera recorded from the Australian Region are diagnosed and keyed; notes on their general distribution are provided.

Key words: Entomology, review, taxonomy, Australian Region, *Heteroptera*, *Cydnidae*.

#### INTRODUCTION

The present paper is a continuation of my studies on the Old World *Cydnidae* and deals with representatives of the family recorded from the Australian Region; a revision of the neighbouring Oriental fauna of the *Cydnidae* has been published recently (LIS 1994b).

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In this paper, the Australian Region comprises Australia and adjacent islands, New Guinea and adjacent islands, Solomon Islands, Samoa, Fiji, Moluccas and Timor. The fauna of *Cydnidae* of the islands included was studied to some degree in the past, but was unfortunately summarised only sporadically (WOODWARD 1953, 1956; FROESCHNER 1967; LIS 1993a, 1994a). Even though most of the cydnid species known from the studied area were described in the 19th c. from the Australian continent, further studies on the continental fauna have been totally neglected. The chapter on *Hemiptera* in the second edition of "The Insects of Australia" (CSIRO, 1991) provides the best example. The following sentence epitomises our previous knowledge of the Australian *Cydnidae* - "all Australian species belong to the *Cydninae*, most to *Adrisa*". Fortunately, recently published papers (LIS 1994c, 1995a, 1995b) considerably advanced the knowledge of the Australian members of the family.

In this paper all the genera known from the studied area are revised, and all the previously known species are assigned to proper genera, mainly on the basis of the examination of the type-material. Keys to the subfamilies, tribes and genera, and descriptions of three taxa new to the science are provided. For the terminology see LIS (1994b).

#### ABBREVIATIONS OF DEPOSITORIES

Specimens mentioned in the text are kept in a number of different depositories; the names of twenty three of these have been abbreviated as follows:

- BMNH - Natural History Museum, London, England;
- CMNH - Carnegie Museum of Natural History, Pittsburgh, USA;
- HNHM - Hungarian Natural History Museum, Budapest, Hungary;
- IRSNB - Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium;
- JAL - J.A. LIS collection, University of Opole, Poland;
- JEC - J.E. EGER collection, Tampa, Florida, USA;
- MCSN - Museo Civico di Storia Naturale, Genova, Italy;
- MCZH - Museum of Comparative Zoology, Harvard University, USA;
- MNHN - Muséum National d'Histoire Naturelle, Paris, France;
- MNHU - Museum für Naturkunde, Humboldt-Universität, Berlin, Germany;
- NhMW - Naturhistorisches Museum Wien, Vienna, Austria;
- NMB - Naturhistorisches Museum Basel, Switzerland;
- NMV - National Museum of Victoria, Melbourne, Australia;
- NNML - Nationaal Natuurhistorisch Museum, Leiden, the Netherlands;
- NSMT - National Science Museum, Tokyo, Japan;
- NZAC - New Zealand Arthropod Collection, Auckland, New Zealand;
- RCF - R.C. FROESCHNER collection, Smithsonian Institutions, Washington, USA;
- SAM - South Australian Museum, Adelaide, Australia;
- SMNH - Swedish Museum of Natural History, Stockholm, Sweden;
- STMD - Staatliches Museum für Tierkunde, Dresden, Germany;
- USNM - United States National Museum, Washington, USA;

ZIZM - Zoologisches Institut und Museum, Universität Hamburg, Germany;

ZMA - Zoologisch Museum, Universiteit van Amsterdam, the Netherlands;

ZMC - Zoologisk Museum, Copenhagen, Denmark.

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#### TAXONOMY

##### KEY TO THE SUBFAMILIES OF *CYDNIDAE*

1. Trichobothria of sternites III-VII arranged in longitudinal pairs; body flattened .  
 ..... *Garsauriinae*  
 -. Trichobothria arranged in more or less transverse pairs; body more or less convex  
 ..... *Cydninae*

##### Subfamily *Garsauriinae* FROESCHNER

*Garsauriinae* FROESCHNER, 1960a: 364 (type-genus: *Garsauria* WALKER, 1868).

Body flattened, lateral margins almost parallel; dorsal surface coarsely punctured.

Head broader than long, trapezoid or subtriangular; each paraclypeus dorsally with two primary setigerous punctures; eyes large and protruding; antennae 5-segmented, 2nd segment very short; rostrum short, reaching at most to the base of mesosternum.

Pronotum distinctly broader than long; anterior and lateral margins carinated, disc flattish with transverse depression on either side behind calli. Scutellum short, triangular, broader than long, apex almost rounded. Corium divided into clavus, meso- and exocorium, short; membrane large.

Anterior and posterior convexity of propleuron distinctly developed; evaporative areas on both meso- and metapleuron small, peritreme well differentiated, opening visible in ventral view. Legs not modified; fore, mid and hind tibia slender with tarsus inserted at its apex; 2nd tarsal segment thinner than either I or III.

Sternites III-VII each with two trichobothria arranged in longitudinal pairs posterior to the spiracle.

In the studied area represented by one species only.

### Genus *Garsauria* WALKER

*Garsauria* WALKER, 1868: 536 (type-species: *Garsauria aradoides* WALKER, 1868, by monotypy).  
*Microrhynchus* SIGNORET, 1883b: LXIII (type-species: *Microrhynchus beccarii* SIGNORET, 1883, by monotypy), syn. by DISTANT, 1899: 224.

#### DIAGNOSTIC COMBINATION

Body large, 8.1-11.3 mm in length, usually black, sometimes blackish brown.

Head short and broad, paraclypei longer than clypeus and joined in front of it; eyes large, protruding, ocelli present; antennae 5-segmented, 2nd segment minute; rostrum 4-segmented, short, reaching at most slightly behind fore coxae; bucculae small, covering only a basal part of rostrum.

Pronotal disc with two distinct depressions; umbones developed. Scutellum small, base more convex than the apex. Membrane narrower than abdomen.

Male genital segment heavily sclerified; penis with theca not sclerified and only slightly pigmented.

#### SPECIES INCLUDED

### *Garsauria aradoides* WALKER

*Garsauria aradoides* WALKER, 1868: 536; LETHIERRY & SEVERIN, 1893:81; DISTANT, 1899: 224, 1902: 103; SCHOUTEDEN, 1905: 49; LIS, 1992a: 147, 1993a: 13, 1995b: 138.

*Microrhynchus Beccarii* SIGNORET, 1883b: LXIII, 1884: 525, syn. with *G. aradoides* by DISTANT, 1899: 224.

*Microrrhynchus* [sic!] *Beccarii*: LETHIERRY & SEVERIN, 1893: 76.

#### TYPE MATERIAL

Lectotype female of *Garsauria aradoides* WALKER (designated by LIS, 1992a: 147): [Indonesia]: Bac. 45; SAUNDERS 65.13; Type; 1. *Garsauria aradoides* WALKER; Brit. Mus. Type No. Hem. 354; Lectotype, det. J.A. LIS (BMNH); examined.

Lectotype female of *Microrhynchus beccarii* SIGNORET (designated by LIS, 1992a: 147): [Indonesia]: Isole Key, 1873, O. BECCARI; Typus; *Microrhynchus Beccarii* n.sp., Bull. Soc. Ent. 1882; *Beccarii* SIGN.; Museo Civico di Genova; Lectotype, det. J.A. LIS (MCSN); examined.

#### OTHER MATERIAL EXAMINED

Indonesia: Air Besar, alt. 300m, Paso, Ambon I., Maluku, 1male 4.IX.1977, Shinji Nagai leg. (NSMT); Buru, Station 1, 1 female 1921, leg. L.J. TOXOPEUS, ex alcohol (ZMA); NW New Guinea, Sorong, 1 male 5.VI-7.VII.1948, M.A. LIEFTINCK, det. as *Garsauria aradoides* Walk. by N.C.E. MILLER 1953 (NNML).

Papua New Guinea: Ighibirei, Loria, 1 male 1 female VII-VIII 90, Museo Civico di Genova (MCSN); British New Guinea, Avenagora, Mt. Obree, 1 male IX.1921,



R. NEIL, ROTHSCHILD Bequest, B.M. 1939-1 (BMNH); Papua, Kokoda, 1.200ft, 1 male 4 females VIII.1933, L.E. CHEESMAN, B.M. 1933-427 (BMNH, JAL).

DISTRIBUTION

Papua New Guinea, Solomon Islands, Indonesia (Java, Sumatra, Buru, Ambon, Irian Jaya), Malaysia (Sarawak).

NOTE

The species was redescribed and figured by LIS (1994b).

**Subfamily Cydninae BILLBERG**

*Cydnides* BILLBERG, 1820: 70 (type-genus *Cydnus* FABRICIUS, 1803).

Body more or less convex. Head from semicircular to subtriangular, margins entire without crenulations; submargins of paraclypei with setigerous punctures; eyes small to large, ocelli either present or absent; antennae 4- or 5-segmented; rostrum 4-segmented, varying in length, usually reaching mid coxae.

Pronotum broader than long; each lateral margin with setigerous punctures.

Scutellum either not longer than broad (*Cydnini*) or longer than broad (*Geotomini*).

Corium divided into clavus, meso- and exocorium; clavo-mesocorial suture sometimes absent; membrane from normally developed to reduced; costal margins either with or without setigerous punctures.

Propleuron with distinct depression; apex of peritreme modified.

Sternites III-VII with two trichobothria arranged differently on each sternite - on VII in transverse row behind the spiracle, on VI to III the inner trichobothrium shifts progressively forward until on III it lies anteriorly, mesoanteriorly or mesad to the spiracle.

Legs normally developed or modified; tarsi present, 2nd tarsal segment subequal in diameter to the 1st or 3rd.

KEY TO THE TRIBES OF *CYDNINAE*

1. Scutellum short, usually not reaching half length of hemelytra, broader than or as broad as long; peritreme extending laterally as an elevated polished band (figs. 1, 8) ..... *Cydnini*
- Scutellum long, extending beyond half length of hemelytra, usually longer than broad; peritreme different ..... *Geotomini*

### Tribe *Cydnini* BILLBERG

#### KEY TO THE GENERA OF *CYDNINI*

1. Submargins of head with setigerous punctures bearing pegs and hair-like setae (fig. 3); polished part of peritreme very long, forming a posteriorly curved rounded lobe (fig. 1) ..... 2.
- Submargins of head with setigerous punctures bearing only hair-like setae; polished part of peritreme shorter, not forming a posteriorly curved rounded lobe ..... 3.
2. Lateral margins of pronotum and corium distinctly serrated (fig. 2) ..... *Centrostephus*
- Lateral margins of pronotum and corium not serrated ..... *Chilocoris*
3. Eyes stylated (fig. 4); corium short, occupying about two-fifths hemelytral length (fig. 6) ..... *Blaena*
- Eyes not stylated (fig. 5); corium long, reaching at least half hemelytral length (fig. 7) ..... *Cydnus*

### Tribe *Cydnini* BILLBERG

#### Genus *Blaena* WALKER

*Blaena* WALKER, 1868: 537 (type-species: *Blaena setosa* WALKER, 1868, by monotypy).

*Macrymenus* SIGNORET, 1881b: XVII (type-species: *Macrymenus membranaceus* SIGNORET, 1881, by monotypy), syn. by DISTANT, 1899:224.

#### DIAGNOSTIC COMBINATION

Body medium-sized, 4.6-6.3 mm in length, elongate, sides subparallel (fig. 6); dorsum flattened to weakly convex.

Lateral margins of head diverging from preocular emarginations; submargins with setigerous punctures bearing hair-like setae; paraclypei longer than clypeus and joined in front of the latter; eyes not large, stylated (fig. 4); ocelli very small; antennae 5-segmented, segments cylindrical.

Pronotum broader than long, almost subquadrate in outline; disc coarsely and densely punctured; anterior margin strongly concave; lateral margins with a submarginal row of setigerous punctures.

Scutellum distinctly broader than long, subtriangular.

Corium short, divided into clavus, meso- and exocorium; membrane very large, nearly two-thirds hemelytral length; costa with or without setigerous punctures.

Propleuron densely punctured; evaporative areas well defined; apex of peritreme polished, elongated, not recurved posteriorly.

Legs with hind tibiae simple or variously contorted, spined and haired in male.

## NOTE

The representatives of the genus were revised by FROESCHNER (1960b, 1966).

## SPECIES INCLUDED

***Blaena blothroposa* FROESCHNER**

*Blaena blothroposa* FROESCHNER, 1966: 690; Lis, 1995b: 138.

## TYPE MATERIAL

Holotype male: Inglewood, Victoria, December 23, 1923 (NMV); not examined.

## DISTRIBUTION

Australia (Victoria).

***Blaena cirra* FROESCHNER**

*Blaena cirra* FROESCHNER, 1966: 692; Lis, 1995b: 138.

## TYPE MATERIAL

Holotype male: Geraldton, W. Australia, J. CLARK (NMV); not examined.

## DISTRIBUTION

Australia (Western Australia, New South Wales).

***Blaena coarctata* FROESCHNER**

*Blaena coarctata* FROESCHNER, 1960b: 457, 1966: 690; Lis, 1995b: 138.

## TYPE MATERIAL

Holotype male: Woodforde Cr., Andamooka Rgs., 31, Aug. 1948, G.F. GROSS (SAM); not examined.

## DISTRIBUTION

Australia (south-eastern parts).

***Blaena mediocarinata* FROESCHNER**

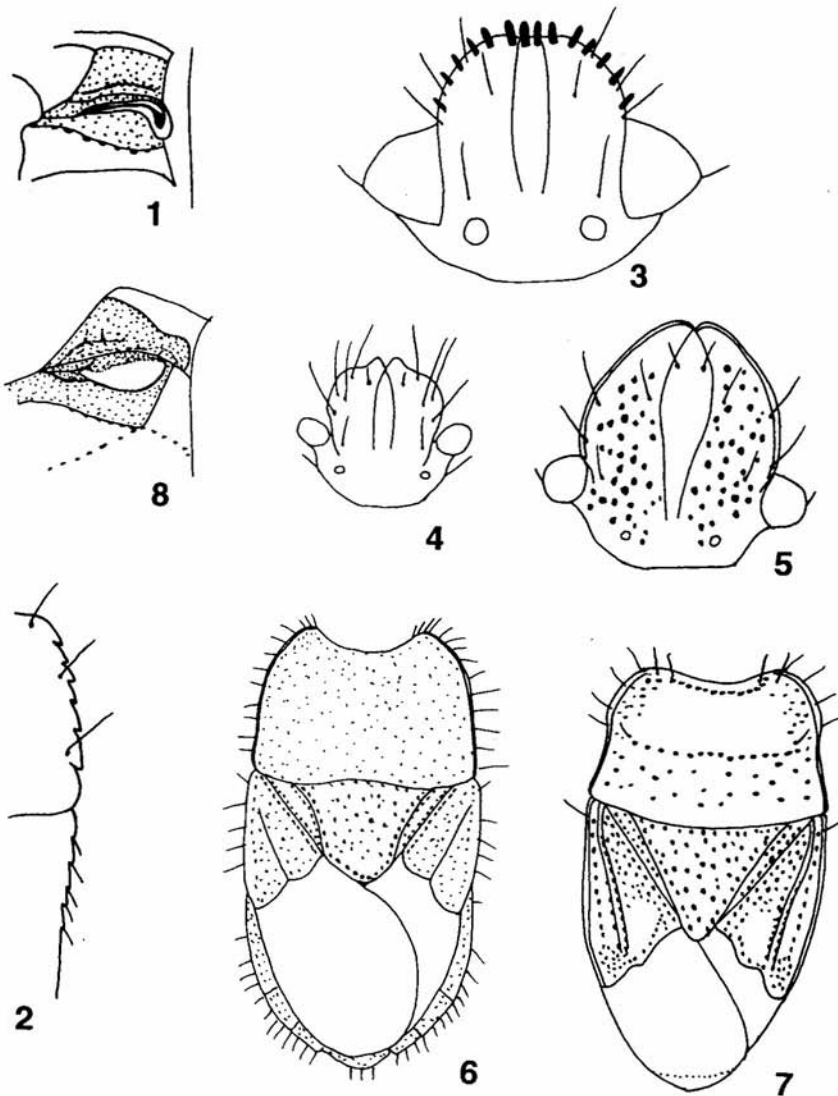
*Blaena mediocarinata* FROESCHNER, 1960b: 459; Lis, 1995b: 139.

## TYPE MATERIAL

Holotype male: Margaret River, S.W.A., No. 5, Harvard Austr. Exp., P.J. DARLINGTON (MCZH); not examined.

## DISTRIBUTION

Australia (south-western corner).



1. *Chilocoris barbarae* LIS; 2. *Centrostephus* sp.; 3. *Chilocoris biroi* HORV.; 4, 6. *Blaena setosa* WALK.; 5, 7, 8. *Cydnus borneensis* LIS: 1, 8 - evaporatoria, 2 - lateral margins of pronotum and corium, 3-5 - head, 6-7 - body outline (without head and legs)

***Blaena multiricha* FROESCHNER**

*Blaena multiricha* FROESCHNER, 1960b: 460; LIS, 1995b: 139.

## TYPE MATERIAL

Holotype male: Cunnamulla, Q., H. HARDCASTLE (SAM); not examined.

## DISTRIBUTION

Australia (South Australia, Queensland).

***Blaena setosa* WALKER**

*Blaena setosa* WALKER, 1868: 538; LETHIERRY & SEVERIN, 1893: 81; DISTANT, 1899: 224; BERGROTH, 1912: 343; FROESCHNER, 1960b: 462, 1966: 690; VAN DEN BERG, 1980: 225; SCHAEFFER, 1988: 24; LIS, 1995b: 139.

*Macrymenus membranaceus* SIGNORET, 1881b: XVIII; LETHIERRY & SEVERIN, 1893: 76; syn. with *Blaena setosa* by DISTANT, 1899: 224.

*Macrymenus* [sic!] *membranaceus*: SIGNORET, 1881a: 655, 1884: 523.

## TYPE MATERIAL

Lectotype female (designated by FROESCHNER, 1960b: 463) of *Blaena setosa* WALKER: [locality unknown] (BMNH); examined.

Lectotype male (designated by FROESCHNER, 1960b: 463) of *Macrymenus membranaceus* SIGNORET: Austral., Coll. SIGNORET; *membranac.*, det. SIGNORET; Lectotype, *membranaceus* SIGN., labelled by R.C. FROESCHNER 59; *Blaena setosa* WALK., det. R.C. FROESCHNER 59 (NhMW); examined.

## DISTRIBUTION

Australia (Western Australia, South Australia, Queensland, Victoria).

***Blaena subsulcata* FROESCHNER**

*Blaena subsulcata* FROESCHNER, 1960b: 464, 1966: 690; LIS, 1995b: 139.

## TYPE MATERIAL

Holotype male: Coen, C.[ape] York, VII-6 '32, Q.[ueensland], Australia, Harvard Exp., DARLINGTON (MCZH); not examined.

## DISTRIBUTION

Australia (Northern Territory, Queensland).

**Genus *Centrostephus* HORVÁTH**

*Centrostephus* HORVÁTH, 1919: 262 (type-species: *Chilocoris parumpunctatus* SIGNORET, 1884, by original designation).

## DIAGNOSTIC COMBINATION

Body small, 2.2-2.7 mm in length; general habitus similar to that of the genus *Chilocoris* (fig. 9).

Head elongated; clypeus free, longer than paraclypei, subapically with two pegs; each paraclypeus with primary (hair-like setae) and secondary (submarginal pegs) type of vestiture; eyes protruding; ocelli present; antennae 5-segmented, 2nd segment minute.

Pronotum broader than long, narrowed anteriorly; lateral margins distinctly serrated (fig. 2), each with marginal and submarginal setigerous punctures; disc divided in two lobes by a transverse impressed row of punctures.

Scutellum triangular, wider than long, apex narrowed, disc punctured.

Corium divided into clavus, meso- and exocorium; costal margins distinctly serrated (fig. 2), each with short hair-like setae; membrane not large, membranal suture slightly sinuate.

Evaporatoria on meso- and metapleuron large, subquadrate, occupying entire pleural area; peritreme transverse, trough-like in basal part, apex elongated, its posteriorly curved rounded lobe almost reaching the posterior margin of metapleural evaporative area.

Legs with hind tibiae slender, armed with numerous spines and setae.

## NOTE

The type of the genus (*C. parumpunctatus* SIGN. - fig. 9) is an Oriental species; it was examined.

## SPECIES INCLUDED

***Centrostephus pullus* HORVÁTH**

*Centrostephus pullus* HORVÁTH, 1919: 264; LIS, 1995b: 139.

## TYPE MATERIAL

Syntype(s) female: Nova Britannia, Insula Des Lacs, L. BIRÓ, 1901 (HMNH); not examined.

## DISTRIBUTION

New Britain.

*Centrostephus tumidicollis* HORVÁTH

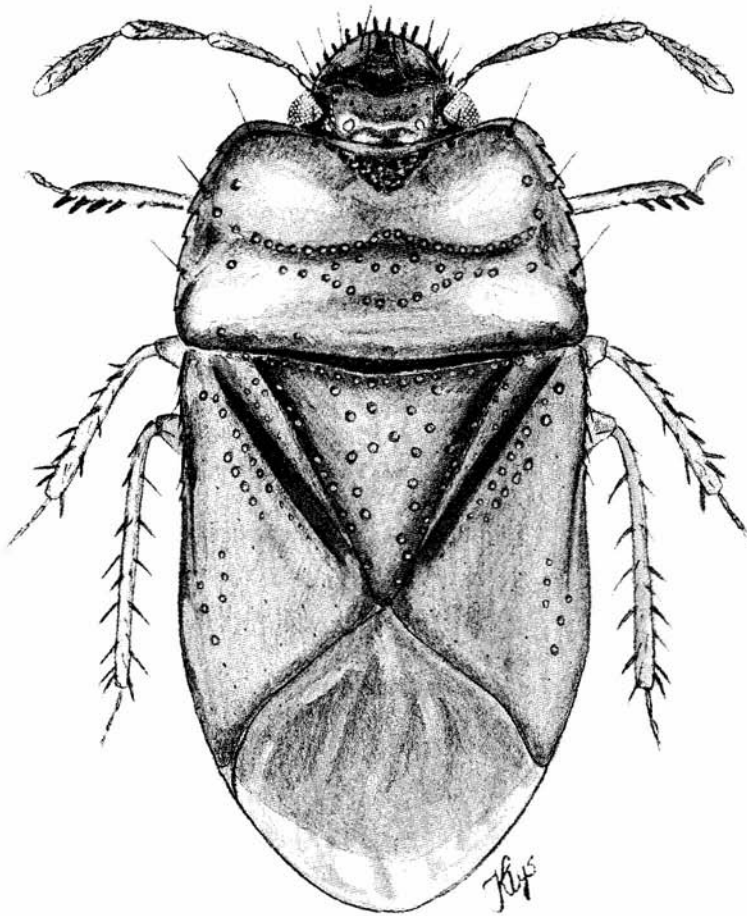
*Centrostephus tumidicollis* HORVÁTH, 1919: 263; LIS, 1995b: 139.

## TYPE MATERIAL

Syntypes [males and females]: Nova Guinea, Stephansort et Erima in sinu Astrolabico, L. BIRÓ, 1906 et 1907 (HNHM); not examined.

## DISTRIBUTION

New Guinea.



9. *Centrostephus parumpunctatus* (SIGN.) - general habitus

**Genus *Chilocoris* MAYR**

- Chilocoris* MAYR, 1864: 907 (type-species: *Chilocoris nitidus* MAYR, 1864, by monotypy).  
*Amnestoides* SIGNORET, 1881c: VIII (type-species: *Amnestoides ritzemae* SIGNORET, 1881, by monotypy),  
syn. with *Chilocoris* by SIGNORET, 1884: 517.  
*Statanus* DISTANT, 1908: 430 (type-species: *Statanus membranaceus* DISTANT, 1908, by original designation)  
syn. with *Chilocoris* by LIS, 1991b: 172.  
*Macroporus* UHLER, 1876: 278 (type-species: *Macroporus repetitus* UHLER, 1876, by monotypy), syn. with  
*Chilocoris* by LIS, 1994b: 52.

## DIAGNOSTIC COMBINATION

Body from small to medium-sized, 1.9-6.8 mm in length.

Head spatulate, flattish; clypeus as long as or slightly shorter or longer than paraclypei, subapically with two pegs; paraclypei with a submarginal row of both pegs and hair-like setae (fig. 3); eyes protruding, ocelli present; antennae 5-segmented, 2nd segment shorter than the 3rd.

Pronotum broader than long, slightly convex; anterior submarginal impressed line distinct from side to side; umbones either normally developed or swollen; disc either undivided into lobes or with distinct uninterrupted transverse impressed line postmedially; each lateral margin with a submarginal row of setigerous punctures.

Scutellum broader than long, triangular, slightly narrowed at apical third; apex narrowly rounded, tip sometimes sharp.

Corium divided into clavus, meso- and exocorium; membrane not large, membranal suture straight or almost straight; costa without setigerous punctures, ventral margin sometimes with short shining hair-like bristles.

Evaporatorium on mesopleuron extensive, covering most of the segment, reaching posterior and lateral margins; the polished part of peritreme long, reaching or surpassing the lateral margin of metapleural evaporative area and there forming a posteriorly curved rounded lobe (fig. 1).

Legs with hind tibiae cylindrical, armed with numerous spines.

## SPECIES INCLUDED

***Chilocoris australis* LIS**

*Chilocoris australis* LIS, 1995a: 226, 1995b: 139.

## TYPE MATERIAL

Holotype female: Yallingup, Nr. Cape Naturaliste, S.W. Australia; Sep. 14 - Oct. 31, 1913, R.E. TURNER, 1914-27; Holotype, *Chilocoris australis* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

Australia (south-western).



*Chilocoris bacanicus* LIS

*Chilocoris bacanicus* LIS, 1995a: 228, 1995b: 139.

## TYPE MATERIAL

Holotype female: Bacan, Sibela Range, alt. m 650, 30-01.vi-vii.1985, J. HUIJBREGTS; multistr evergr forest, 2 human excr traps; *Chilocoris bacanicus* LIS, det. J.A. LIS; Holotype, RMNH/HH379A (NNML); examined.

## DISTRIBUTION

Moluccas (Bacan Island).

*Chilocoris barbarae* LIS

*Chilocoris barbarae* LIS, 1991a: 301, 1993b: 25, 1994a: 321, 1995a: 229, 1995b: 139.

## TYPE MATERIAL

Holotype male: Sulawesi Utara, Dumoga-Bone Nat. Park, Base Camp (200m), 20-X-1985, Station: 039, Project Wallace, leg. R. BOSMANS & J. VAN STALLE, n. 26.977, Coll. R.I.Sc.N.B., *Chilocoris barbarae* LIS, det. J.A. LIS, Holotype (IRSNB); examined.

## DISTRIBUTION

Australia, New Guinea, [Oriental Region: Malay Peninsula, Sumatra, Java, Madura, Sulawesi, Peleng].

*Chilocoris biroii* HORVÁTH

*Chilocoris Biroi* HORVÁTH, 1919: 257.

*Chilocoris biroii*: LIS, 1993b: 26, 1994a: 322, 1995a: 229, 1995b: 139.

## TYPE MATERIAL

Lectotype female (designated by LIS, 1993b: 27): N. Guinea, BIRÓ 901; Friedrich-Wilh.-hafen; *Birói* HORV. det. HORVÁTH; *Chilocoris Biroi*; Lectotype det. J.A. LIS (HNHM); examined.

## DISTRIBUTION

New Guinea, Australia (Queensland).

*Chilocoris crassimargo* HORVÁTH

*Chilocoris crassimargo* HORVÁTH, 1919: 257; LIS, 1993b: 27, 1994a: 322, 1995b: 140.

## TYPE MATERIAL

Lectotype male (designated by LIS, 1993b: 29): N. Guinea, BIRÓ 901; Friedrich-Wilh.-hafen, male, *crassimargo* det. HORVÁTH; *Chilocoris crassimargo*; Lectotype det. J.A. LIS (HNHM); examined.

## DISTRIBUTION

New Guinea.

*Chilocoris crassimargoides* LIS

*Chilocoris crassimargoides* LIS, 1993b: 29, 1995b: 140.

## TYPE MATERIAL

Holotype male: New Guinea: Madang Dist., Finisterre Mts., Budemu c. 4000 ft, 15-24.X.1964, Stn. No. 51, M.E. BACCHUS, B.M. 1965-120; Holotype det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

New Guinea.

*Chilocoris entzii* HORVÁTH

*Chilocoris Entzii* HORVÁTH, 1919: 260.

*Chilocoris entzii*: FROESCHNER, 1967: 12; LIS, 1993b: 30, 1995b: 140.

## TYPE MATERIAL

Lectotype male (designated by LIS, 1993b: 31): N. Guinea, BIRÓ 96; Friedrich-Wilh.-hafen; *Entzii* HORV. det. HORVÁTH; Lectotype, *Chilocoris Entzii* HORV., labelled by R.C. FROESCHNER (HNHM); examined.

Paralectotype female: N. Guinea, BIRÓ 96; Friedrich-Wilh.-hafen; *Entzii* HORV. det. HORVÁTH; *Chilocoris Entzii*; Paralectotype det. J.A. LIS (HNHM); examined.

## DISTRIBUTION

New Guinea, Bismarck Archipelago (Lavongai).

*Chilocoris impressicollis* HORVÁTH

*Chilocoris impressicollis* HORVÁTH, 1919: 256; LIS, 1993b: 32, 1995b: 140.

## TYPE MATERIAL

Lectotype male (designated by LIS, 1993b: 32): N. Guinea, BIRÓ 1897; Stephensort, Astrolabe Bay; *impressicollis* det. HORVÁTH; *Chilocoris impressicollis*; Lectotype det. J.A. LIS (HNHM); examined.

## DISTRIBUTION

New Guinea.

*Chilocoris madangicus* LIS*Chilocoris madangicus* LIS, 1993b: 34, 1995b: 140.

## TYPE MATERIAL

Holotype male: New Guinea: Madang Dist., Finisterre Mts., Damanti 3,550 ft., 2-11.X.1964, Stn. No. 44, M.E. BACCHUS, B.M. 1965-120; Holotype, *Chilocoris madangicus* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

New Guinea.

*Chilocoris maximus* LIS*Chilocoris maximus* LIS, 1993a: 14, 1995b: 140.

## TYPE MATERIAL

Holotype female: Solomon Is., Kolombangara, 2000, 30/8 1965, P. NATWRAGA, Roy. Soc. Exped., Brit. Mus. 1966-1; Holotype, *Chilocoris maximus* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

Solomon Islands.

*Chilocoris neozealandicus* LARIVIÈRE & FROESCHNER*Chilocoris neozealandicus* LARIVIÈRE & FROESCHNER, 1994: 245.

## TYPE MATERIAL

Holotype male: Campbells Bch nr Tawharanui, 11-13 January 1981, J.C. WATT, window trap under Vitex (NZAC); not examined.

## DISTRIBUTION

New Zealand.

*Chilocoris peterseni* FROESCHNER*Chilocoris peterseni* FROESCHNER, 1967: 14; LIS, 1993b: 35, 1995b: 140.

## TYPE MATERIAL

Holotype female: Bismarck Isl., New Britain, Yalom, 1000m., 20 May 1962, Noona Dan Exp. 61-62; Caught in Malaise-traps; Holotype, *Chilocoris peterseni* FROESCHNER '65 (ZMC); examined.

## OTHER MATERIAL EXAMINED

New Guinea: Madang Dist., Finisterre Mts., Budemu c. 4000ft., 5 females 2 males 15-24.X.1964, Stn. No. 51, M.E. BACCHUS, B.M. 1965-120 (BMNH, JAL); New Guinea: Madang Dist., Moro-Gubelam Rd., c. 7,000 ft. 1 male 10.XI.1964, c. 5550 ft. 1 female 30.X.-15.XI.1964 (BMNH, JAL); Papua New Guinea, Morobe Province, Wau Ecology Inst., 1 female 13 May 1984, 12000m, Coll. CHEN YOUNG (CMNH).

## DISTRIBUTION

New Britain, New Guinea.

*Chilocoris rolandi* LIS

*Chilocoris rolandi* LIS, 1993b: 35, 1995b: 140.

## TYPE MATERIAL

Holotype male: New Guinea: Madang Dist., Finisterre Mts., Damanti 3,550 ft., 2-11.X.1964, Stn. No. 46, M.E. Bacchus, B.M. 1965-120, Holotype, *Chilocoris rolandi* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

New Guinea.

*Chilocoris tasmanicus* LIS

*Chilocoris tasmanicus* LIS, 1995a: 226, 1995b: 140.

## TYPE MATERIAL

Holotype female: Hobart, Tasmania; Holotype, *Chilocoris tasmanicus* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

Tasmania.

*Chilocoris vagauensis* LIS

*Chilocoris vagauensis* LIS, 1993b: 37, 1995b: 140.

## TYPE MATERIAL

Holotype male: New Guinea: Morobe Dist., Herzog Mts., Vagauc. 4,000 ft., 4-17.I.1965, Stn. No. 137, M.E. BACCHUS, B.M. 1965-120, Holotype, *Chilocoris vagauensis* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

New Guinea.

**Genus *Cydnus* FABRICIUS**

*Cydnus* FABRICIUS, 1803: 184 (type-species: *Cimex aterrimus* FORSTER, 1771 [= *Cimex tristis* FABRICIUS, 1775], subsequent designation by BLANCHARD, 1844 (vide CHINA, 1943).

*Brachypelta* AMYOT & SERVILLE, 1843: 89 (type-species: *Cimex tristis* FABRICIUS, 1775, by monotypy), synonym by isogenotypy.

*Cydnus* sg. *Orientocydnus* LIS, 1994b: 102 (type-species: *Cydnus (Orientocydnus) borneensis* LIS, 1994, by original designation).

## DIAGNOSTIC COMBINATION

Body black, sometimes browned, dorsally punctured, 6.6-12.9 mm in length.

Clypeus apically covered by paraclypei, and bearing two hair-like setae at one third of its length; each paraclypeus with submarginal setigerous punctures bearing long hair-like setae (fig. 5); eyes not stylated, ocelli present; antennae 5-segmented.

Pronotum broader than long, convex; umbones not swollen; each lateral margin with a row of long submarginal hair-like setae.

Scutellum triangular, broader than long, disc punctured, apex narrowed (fig. 7)

Corium divided into clavus, meso- and exocorium; costa with a single setigerous puncture; membranal suture bisinuated, membrane normally developed.

Propleural depression deep; anterior convexity either smooth (sg. *Orientocydnus*) or punctured (*Cydnus* s.str.); evaporatorium on mesopleuron not subquadrate, covering only from half to two thirds of the segment; polished part of peritreme broad (fig. 8), without posteriorly curved rounded lobe.

Fore tibiae widened; mid and hind tibiae dorsally flattened; all tibiae armed with strong stout spines.

KEY TO THE SUBGENERA OF *CYDNUS*

1. Anterior convexity of propleuron dulled by numerous coarse punctures; head semicircular, margins broadly expanded and reflected upwards; eyes not protruding ..... *Cydnus*
- Anterior convexity of propleuron smooth and polished; head elongated, margins not expanded; eyes round and protruding ..... *Orientocydnus*

**Subgenus *Cydnus* s. str.**

## SPECIES INCLUDED

***Cydnus (Cydnus) aterrimus* (FÖSTER)**

*Cimex aterrimus* FÖSTER, 1771: 71.

*Cimex tristis* FABRICIUS, 1775: 716, syn. by DALLAS, 1851: 121.

*Brachypelta aterrima*: DISTANT, 1902: 101.

*Cydnus aterrimus*: DALLAS, 1851: 121; LIS, 1995b: 140.

*Cydnus (Cydnus) aterrimus*: LIS, 1994b: 101.

## TYPE MATERIAL

Lectotype male (designated by LIS, 1994b: 101) of *Cimex tristis* FABRICIUS: [Oriente]: *tristis*; Type; *Cimex tristis* FABR. (ZMC); examined.

## DISTRIBUTION

Old World cosmopolitan species [introduced also in the NewWorld]. In Australia recorded only once from Queensland (DISTANT, 1902).

**Subgenus *Orientocydnus* LIS**

## SPECIES INCLUDED

***Cydnus (Orientocydnus) borneensis* LIS**

*Cydnus (Orientocydnus) borneensis* LIS, 1994b: 102.

## TYPE MATERIAL

Holotype female: [Malaysia]: B.N. Borneo, Mt. Kinabalu, Kenokok, 3.300ft., 22 Apr. 1929; H.M. PENDELBURY coll., F.M.S. Museum; Ex F.M.S. Museum, B.M. 1955-354; Holotype, *Cydnus (Orientocydnus) borneensis* LIS, det. J.A. LIS (BMNH); examined.

## OTHER MATERIAL EXAMINED

New Guinea: Sakoemi, Nouvelle Guinée, 1 female 11-III-1929, Prince LÉOPOLD, Coll. R.I.Sc.N.B (IRSNB).

## NOTE

It is the first record of this species from New Guinea; previously known from Borneo only.

Tribe *Geotomini* WAGNER

*Geotomini* WAGNER, 1963: 113 (type-genus: *Geotomus* MULSANT & REY, 1866).

KEY TO THE GENERA OF *GEOTOMINI*

1. Antennae 4-segmented, 2nd segment very long ..... 2.
- Antennae 5-segmented, 2nd segment of different length ..... 4.
2. Body medium-sized, c. 4-5 mm in length; dorsal surface testaceous with blackish-brown patches; eyes narrow, elongated, immersed in the head for two thirds eye width ..... *Cydnchoerus*
- Body large, c. 10-20 mm in length; dorsal surface from brown to black, more or less uniformly coloured; eyes large, rounded, prominent ..... 3.
3. Ocelli present, well visible; corium conspicuously divided into clavus, meso- and exocorium; body dorsally convex ..... *Adrisa*
- Ocelli absent; clavo-mesocorial suture almost invisible; suture between meso- and exocorium very short, visible only basally; body dorsally somewhat flattened ..... *Teaboma*
4. Apex of peritreme either lobe-like or loop-like, totally more or less polished, its posterior margin without modifications (figs. 10-14) ..... 5.
- Apex of peritreme neither lobe-like nor loop-like, its posterior margin modified into a claw-like, tooth-like or tongue-like process (figs. 21, 25, 26) ..... 10.
5. Evaporatoria small, reduced, just outlining the peritreme (figs. 10-11) ..... 6.
- Evaporatoria large, well defined (figs. 12-14) ..... 8.
6. Eyes narrow, elongated, only slightly protruding, immersed in the head for at least two thirds eye width (fig. 15); ocelli small, almost invisible ..... *Eulonips*
- Eyes broad, almost rounded, distinctly protruding, immersed in the head for less than one third eye width (figs. 16, 27); ocelli large, well visible ..... 7.
7. Costa without setigerous punctures; all antennal segments cylindrical; general outline of head as in fig. 27; lateral areas of meso- and metapleuron coarsely punctured and with oblique furrows as in fig. 11; body more elongate .... *Alonips*
- Costa with numerous setigerous punctures; 1st and 2nd antennal segment cylindrical, the remaining segments rounded or almost rounded; general outline of head as in fig. 16; lateral areas of meso- and metapleuron with weak puncturation, oblique furrows absent; body more ovate ..... *Byrsinus*
8. Submargins of head with both hair-like and peg-like setae ..... *Microporus*
- Submargins of head with hair-like setae only ..... 9.
9. Body broadly ovate (fig. 18); each eye for two thirds of its width immersed in the head (fig. 17); scutellar apex sharp or nearly so; clavo-mesocorial suture almost indistinct ..... *Choerocydnus*
- Body elongated (fig. 20); eyes distinctly protruding (fig. 19); scutellar apex tongue-like; clavo-mesocorial suture distinctly developed ..... *Geotomus*

10. Submargins of head with both peg-like and hair-like setae..... *Aethus*  
 -. Submargins of head with hair-like setae only, peg-like setae never present ..... 11.
11. Fore tibia conspicuously produced beyond the point of tarsal insertion, thus tarsus not inserted apically; apical lobe of peritreme with claw-like process posteriorly (fig. 21) ..... *Lactistes*  
 -. Fore tibia not produced beyond the point of tarsal insertion, tarsus inserted apically; apical lobe of peritreme different ..... 12.
12. Umbones of pronotum strongly swollen and protruding, concealing its posterolateral margins (fig. 22) ..... *Macroscytus*  
 -. Umbones of pronotum not swollen, posterolateral margins visible in dorsal view ..... 13.
13. Clavo-mesocorial suture distinctly developed, a suture between meso- and exocorium almost complete; body outline as in fig. 23; ocelli large, well visible ..... *Fromundus*  
 -. Clavo-mesocorial suture absent, suture between meso- and exocorium short, incomplete; body outline as in fig. 24; ocelli very small, almost invisible ..... *Peltoscytus*

### Genus *Adrisa* AMYOT & SERVILLE

*Adrisa* AMYOT & SERVILLE, 1843: 89 (type-species: *Adrisa nigra* AMYOT & SERVILLE, 1843, by monotypy).  
*Geobia* MONTROUZIER, 1858: 245 (type-species: *Geobia numeensis* MONTROUZIER, 1858, subsequent designation by HORVÁTH, 1919), syn. with *Adrisa* by SIGNORET, 1881a: 622.  
*Acatalectus* DALLAS, 1851: 122 (type-species: *Acatalectus rugosus* DALLAS, 1851, subsequent designation by LIS, 1992b), syn. with *Adrisa* by SIGNORET, 1881a: 622.

#### DIAGNOSTIC COMBINATION

Body large, 9.6-21.8 mm in length; head, pronotum and scutellum shining, corium usually dulled.

Head semicircular in outline, broader than long, dorsal surface usually wrinkled and punctured; clypeus slightly shorter than paraclypei, without or with a pair of subapical setigerous punctures; each paraclypeus without or with a row of setigerous punctures bearing hair-like setae; eyes large and rounded, each without apical spine; ocelli distinctly developed; antennae 4-segmented, 2nd segment very long.

Pronotum broader than long, its disc conspicuously punctured, undivided into lobes; umbones not swollen; each lateral margin with or without submarginal setigerous punctures; anterior margin more or less sinuate.

Scutellum longer than broad, distinctly punctured; basal and lateral rows of punctures distinctly developed; apex almost sharp.

Corium divided into clavus, meso- and exocorium, almost entirely densely punctured; clavus with a few rows of punctures; costa with or without setigerous punctures; membrane normally developed, not reduced, usually with dark or light irregular patches; membranal suture straight.



Propleuron sometimes wrinkled, depression with numerous large punctures; evaporatoria large, apex of peritreme with polished, somewhat recurved lobe on its posterior margin.

Sternites glossy in the middle, lateral two thirds distinctly punctured, sometimes also wrinkled.

Fore tibiae distinctly expanded, margins with strong spines; mid and hind tibiae compressed, with numerous spines on margins; fore, mid and hind femora with setae, spines or teeth.

Paramere stout, theca of penis only slightly pigmented.

SPECIES INCLUDED

*Adrisa angusta* SIGNORET

*Adrisa angusta* SIGNORET, 1881d: 208; LETHIERRY & SEVERIN, 1893: 63; LIS, 1995b: 141.

TYPE MATERIAL

Syntype(s): K. [ing's] G. [orge] S. [ound]; coll. DISTANT (BMNH); not examined.

DISTRIBUTION

Australia.

*Adrisa atra* (DALLAS)

*Acatalectus ater* DALLAS, 1851: 123; DOHRN, 1859: 9; WALKER, 1867: 165.

*Adrisa atra*: STAL, 1876: 20; SIGNORET, 1881d: 216; LETHIERRY & SEVERIN, 1893: 63; FAITHFULL, 1987: 37; LIS, 1995b: 141.

*Adrisa* [sic!] *atra*: FROGGATT, 1907: 328.

TYPE MATERIAL

Lectotype female (present designation): New Holl., 444; a; Type; 7. *Acatalectus ater*; Brit. Mus. Type No. Hem. 280 (BMNH); examined.

DISTRIBUTION

Australia.

*Adrisa distincta* SIGNORET

*Adrisa distincta* SIGNORET, 1881d: 211; LETHIERRY & SEVERIN, 1893: 63; LIS, 1995b: 141.

TYPE MATERIAL

Syntype(s): Nouvelle-Galles-du-Sud; Mus. roy. de Leyde (NNML); not examined.

## DISTRIBUTION

Australia (New South Wales).

*Adrisa erichsoni* SIGNORET

*Adrisa sepulchralis*: SIGNORET, 1881a: 624.

*Adrisa Erichsoni* SIGNORET, 1881d: 215; LETHIERRY & SEVERIN, 1893:63.

*Adrisa erichsoni*: FAITHFULL, 1987: 37; LIS, 1995b: 141.

## TYPE MATERIAL

Lectotype male (present designation): Austral., Coll. SIGNORET; *Erichsoni*, det. SIGNORET (NhMW); examined.

## DISTRIBUTION

Australia.

*Adrisa expansa* SIGNORET

*Adrisa expansa* SIGNORET, 1881d: 214; LETHIERRY & SEVERIN, 1893: 63; LIS, 1995b: 141.

## TYPE MATERIAL

Syntype(s): Australie, Musée de Stockholm (SMNH); not examined.

## DISTRIBUTION

Australia.

*Adrisa flavomarginata* (VOLLENHOVEN)

*Acatalectus flavo-marginatus* VOLLENHOVEN, 1868a: 177.

*Adrisa flavo-marginata*: STAL, 1876: 20; SIGNORET, 1881a: 625, 1881d: 212.

*Adrisa flavomarginata*: LETHIERRY & SEVERIN, 1893: 63; RUCKES, 1963: 317; LIS, 1995b: 141.

## TYPE MATERIAL

Syntype(s): New Caledonia (NNML); not examined.

## DISTRIBUTION

Australia (New South Wales), New Caledonia, Guam.

*Adrisa mayri* SIGNORET

*Adrisa? Mayri* SIGNORET, 1881d: 218.

*Adrisa Mayri*: LETHIERRY & SEVERIN, 1893: 63.

*Adrisa mayri*: LIS, 1995b: 141.

## TYPE MATERIAL

Lectotype female (present designation): Austral., 1872; *Mayri* det. SIGNOR.;  
 Typus, *mayri* SIGN., labelled by R.C. FROESCHNER '59 (NhMW); examined.

## DISTRIBUTION

Australia.

***Adrisa numeensis* (MONTROUZIER)**

*Geobia numeensis* MONTROUZIER, 1858: 245.

*Aethus numeensis*: WALKER, 1867: 162.

*Aethus Numeensis*: MONTROUZIER, 1861: 62.

*Acatalectus luteo-marginatus* VOLLENHOVEN, 1868a: 177; syn. by SIGNORET, 1881d: 212.

*Acatalectus luteomarginatus*: VOLLENHOVEN, 1868b: 19; WALKER, 1868: 535.

*Adrisa luteo-marginata*: STAL, 1876: 20.

*Adrisa luteomarginata*: SCHOUTEDEN, 1909: 43.

*Adrisa Numeensis*: LETHIERRY & SEVERIN, 1893: 63.

*Adrisa numeensis*: STAL, 1876: 20; SIGNORET, 1881d: 212; SCHOUTEDEN, 1907: 109; DISTANT, 1914: 372;  
 SMITH, 1978: 821; LIS, 1995b: 141.

## TYPE MATERIAL

Holotype female (by monotypy) of *Geobia numeensis* MONTROUZIER: N. Calédonie  
 (P. MONTROUZIER), Coll. R.I.Sc.N.B.; *Aethus numeensis* MONTR., Typ., SIGNORET;  
 Holotype (IRSNB); examined.

Syntypes of *Acatalectus luteomarginatus* VOLLENHOVEN: Timor and Flores  
 (NNML); not examined.

## OTHER MATERIAL EXAMINED

New Caledonia: N. Caledon., 1 male, Staatl. Museum für Tierkunde, Dresden;  
*numeensis* MONTR. (SMTD).

## DISTRIBUTION

Australia, New Caledonia, Timor, Fiji, [Flores].

***Adrisa punctulata* (DALLAS)**

*Acatalectus punctulatus* DALLAS, 1851: 123; DOHRN, 1859: 9; WALKER, 1867: 165.

*Adrisa punctata* [sic!]: SIGNORET, 1881a: 623, 1881d: 214.

*Adrisa punctulata*: STAL, 1876: 20; LETHIERRY & SEVERIN, 1893: 63; LIS, 1995b: 141.

## TYPE MATERIAL

Lectotype male (present designation): New Holland, 444; a; Type; 6. *Acatalectus*  
*punctulatus*; Brit. Mus. Type No. 282 (BMNH); examined.

## OTHER MATERIAL EXAMINED

Australia: New Holland, 141, 4 males 4 females, Staatl. Museum für Tierkunde, Dresden (STMD).

## DISTRIBUTION

Australia.

***Adrisa rugosa* (DALLAS)**

*Acatalectus rugosus* DALLAS, 1851: 122; DOHRN, 1859: 9; WALKER, 1867: 165.

*Adrisa rugosa*: STAL, 1876: 20; SIGNORET, 1881a: 622, 1881d: 209; LETHIERRY & SEVERIN, 1893: 63; LIS, 1995b: 141.

## TYPE MATERIAL

Lectotype male (present designation): Port Essington, 4673; a; Type; 3. *Acatalectus rugosus*; Brit. Mus. Type No. Hem. 279 (BMNH); examined.

## DISTRIBUTION

Australia.

***Adrisa sepulchralis* (ERICHSON)**

*Cydnus sepulchralis* ERICHSON, 1842: 276.

*Aethus sepulchralis*: WALKER, 1867: 162.

*Acatalectus sepulchralis*: WALKER, 1867: 165.

*Acatalectus sepulchralis* [sic!]: DALLAS, 1851: 123; DOHRN, 1859: 9.

*Adrisa sepulchralis* [sic!]: STAL, 1876: 20.

*Adrisa sepulchralis*: SIGNORET, 1881d: 217; LETHIERRY & SEVERIN, 1893: 63; LIS, 1995b: 141.

nec *Adrisa sepulchralis*: SIGNORET, 1881a: 624.

## TYPE MATERIAL

Lectotype female (present designation): VanDiemens land, SCHAYER; 569; *sepulchralis* ER.; Typus; Zool. Mus. Berlin (MNHU); examined.

## DISTRIBUTION

Australia, Tasmania.

***Adrisa similis* SIGNORET**

*Adrisa similis* SIGNORET, 1881a: 624, 1881d: 210; LETHIERRY & SEVERIN, 1893: 63; LIS, 1995b: 142.

## TYPE MATERIAL

Lectotype male (present designation): N. Guinea, Isola Yule, VI 1875, L.M. D'ALBERTIS; Typus; *similis* SIGN.; *Adrisa similis* n.sp. (MCSN); examined.

## DISTRIBUTION

New Guinea.

*Adrisa willeyi* KIRKALDY

*Adrisa willeyi* KIRKALDY, 1905: 358; LIS, 1995b: 142.

*Adrisa Willeyi*: BERGROTH, 1908: 148.

## TYPE MATERIAL

Syntypes: Lifu, Willey, 226a, 212b, 319 (BMNH); not examined.

## DISTRIBUTION

Lifu Island.

**Genus *Aethus* DALLAS**

*Aethus* DALLAS, 1851: 112 (type-species: *Cydnus indicus* WESTWOOD, 1837, subsequent designation by Van Duzee, 1914).

*Cydnus* [part] of authors, nec *Fabricius* 1803.

## DIAGNOSTIC COMBINATION

Body (fig. 31) convex, from small to large, usually black or brown, rarely brown-yellow.

Head more or less semicircular, broader than long; clypeus as long as or shorter than paraclypei, sometimes its apex almost totally covered by them; subapical part of clypeus without or with a pair of peg-like or hair-like setae; each paraclypeus with a submarginal row of setigerous punctures bearing both peg-like and hair-like setae; eyes narrowed, each with a conspicuous apical spine; ocelli present, well developed; antennae 5-segmented, segments cylindrical.

Pronotum broader than long, undivided into lobes; anterior margin moderately to strongly angularly emarginated; umbones slightly swollen, sometimes partially concealing posterolateral margins; each lateral margin with a submarginal row of setigerous punctures bearing long hair-like setae.

Scutellum longer than broad; basal and lateral rows of punctures developed, but sometimes almost indistinct; apex rounded.

Corium divided into clavus, meso- and exocorium, punctured, mesocorium additionally with two rows of punctures paralleling clavo-mesocorial suture; costa with setigerous punctures; membranul suture straight.

Propleuron with deep, more or less punctured depression; evaporatoria on meso- and metapleuron large; apex of peritreme kidney-shaped, posteriorly with usually blunt, not claw-like tooth (figs. 25).

Sternites glossy in the middle, sides punctured, sometimes also wrinkled.

Fore tibiae distinctly compressed and expanded, outer margin with stout spines; mid and hind tibiae usually slender, only sometimes slightly broadened, margins spined; ventral margin of femora with long setae.

## NOTE

The Australian representatives of the genus were recently revised and keyed by LIS (1994c).

## SPECIES INCLUDED

*Aethus parvulus* SIGNORET

*Aethus parvulus* SIGNORET, 1882a: 33; LIS, 1994c: 358, 1995b: 142.  
*Cydnus parvulus*: LETHIERRY & SEVERIN, 1893: 67.

## TYPE MATERIAL

Lectotype female (designated by LIS, 1994c: 360): Australien, coll. SIGNORET; *parvulus* det. SIGNORET; Type, *parvulus* SIGN., labelled by R.C. FROESCHNER 53; Lectotype det. J.A. LIS (NhMW); examined.

## DISTRIBUTION

Australia.

*Aethus philippinensis* DALLAS

*Aethus philippinensis* DALLAS, 1851: 118; LIS, 1993a: 15, 1993d: 108, 1994c: 360, 1995b: 142.  
*Cydnus indicus*: LETHIERRY & SEVERIN, 1893: 66 [part].  
*Cydnus indicus*: SIGNORET, 1881a: 632 [part].  
*Aethus indicus*: WALKER, 1867: 155 [part]; FROESCHNER, 1967: 12.  
*Cydnus ceylonicus* MAYR, 1866: 362, syn. with *A. philippinensis* by LIS, 1993d: 108.  
*Aethus dilatatus*: SIGNORET, 1882a: 27 [part].

## TYPE MATERIAL

Lectotype male of *Aethus philippinensis* DALLAS (designated by LIS, 1993d: 109): [Philippines]: Type; 4222; *Aethus philippinensis* DALLAS, Type; *philippinensis* identified by DALLAS; Brit. Mus. Type No. Hem. 295, Lectotype det. J.A. LIS 1990 (BMNH); examined.

## DISTRIBUTION

Australia, Papua New Guinea, Bismarck Archipelago, Solomon Islands, Indonesia, Malaysia, Philippines, Singapore, Nicobar Islands, South India.

*Genus Alonips* SIGNORET

*Alonips* SIGNORET, 1881a: 653 (type-species: *Alonips obsoletus* SIGNORET, 1881, subsequent designation by CHINA, 1943); SIGNORET, 1883c: 216 (as a subgenus of *Geotomus* MULS. & REY); LIS, 1994b: 154 (restored to a separate genus).

## DIAGNOSTIC COMBINATION

Body small, 3.0-4.9 mm in length, elongated in outline.

Head semicircular, broader than long (fig. 27); clypeus free, as long as paraclypei, subapically with a pair of hair-like setae; each paraclypeus with a submarginal row of setigerous punctures bearing hair-like setae; eyes broad, distinctly protruding, each with apical spine; ocelli large, well visible; antennae 5-segmented, all segments cylindrical.

Pronotum broader than long, undivided into lobes; anterior margin more or less angularly sinuate, posterior almost straight; umbones slightly swollen, but not concealing posterolateral margins; each lateral margin with a submarginal row of setigerous punctures bearing hair-like setae.

Scutellum longer than broad, elongatedly triangular, apex rounded; disc more or less punctured, basal and lateral rows of punctures distinctly developed.

Corium divided into clavus, meso- and exocorium, distinctly punctured; mesocorium with two rows of punctures paralleling clavo-mesocorial suture; costal margins basally parallel, without setigerous punctures; membranal suture straight.

Propleural depression distinctly developed, its surface with more or less conspicuous punctures; evaporative areas on meso- and metapleuron very small, just outlining the peritrema (fig. 11), sometimes almost invisible; lateral areas of meso- and metapleuron coarsely punctured and usually with oblique furrows; apex of peritrema modified into lobe-like auricle.

Abdomen glossy in the middle, sides rugosely punctured.

Fore tibiae compressed and expanded, margins with stout spines; mid and hind tibiae slender, spined on margins.

## SPECIES INCLUDED

*Alonips obsoletus* SIGNORET

*Alonips obsoletus* SIGNORET, 1881a: 653; LIS, 1994b: 155, 1995b: 142.

*Geotomus (Alonips) obsoletus*: SIGNORET, 1883c: 217.

*Geotomus obsoletus*: LETHIERRY & SEVERIN, 1893: 72.

## TYPE MATERIAL

Lectotype female (present designation): Australia, Somerset, I, L.M. D'ALBERTIS 75; Typus; *Alonips obsoletus* n. sp.; *Alonips obsoletus* SIGN.; Museo Civico di Genova (MCSN); examined.

## OTHER MATERIAL EXAMINED

Australia: Australia, N[orthern] T[erritory], Magela Creek, at UV light, 1 male, XI-4-1989, CW & LB. O'BRIEN (JEC); Australien, Nachlass H.L. SCHRADER, 1 female, 25.9.1896 (JAL).

## DISTRIBUTION

Australia (Northern Territory, Queensland).

*Alonips papuanus* n. sp.

(figs. 27-30)

## TYPE MATERIAL

Holotype male: Papua, Loloki, c. 10 m. N. of Pt. Moresby, 19.III.1965; Stn. No. 208; M.E. BACCHUS, B.M. 1965-120 (BMNH).

## DESCRIPTION

Body reddish-brown; head, pronotum and scutellum darker in shade; body length 3.76 mm, body width 2.10 mm.

Head (fig. 27): Punctured in lateral parts; clypeus as long as paraclypei, subapically with a pair of hair-like setae; each paraclypeus with a single submarginal hair-like seta half way from the eye to the clypeus; eyes pale brown, ocular index 3.15; ocelli pale brown, small, interocellar index 7.0, ocellar index 8.3; antennae pale brown with basal part of segments brown, 3rd segment 1.10-1.18 times longer than the 2nd; rostrum brown, reaching midcoxae.

Thorax: Pronotum with puncturation as in fig. 28; punctures somewhat larger than those on head; each lateral margin with 3 submarginal setigerous punctures. Scutellum coarsely punctured, basal third and apex impunctate; basal and lateral rows of punctures distinct. Corium densely punctured with punctures larger than those on pronotum; clavus with one complete and two partial rows of punctures; mesocorium with two rows of punctures paralleling clavo-mesocorial suture, mesocorial disc evenly punctured; exocorium with weaker puncturation; costa without setigerous punctures; membrane semihyaline, reddish-brown, reaching the tip of abdomen. Propleuron smooth, depression with punctures; evaporatoria similar to those of *A. obsoletus*. Legs reddish-brown, not specifically modified, tarsi brown.

Abdomen: Sternites punctate, particularly in lateral parts.

Male genitalia: Paramere as in fig. 29; opening of genital capsule as in fig. 30.

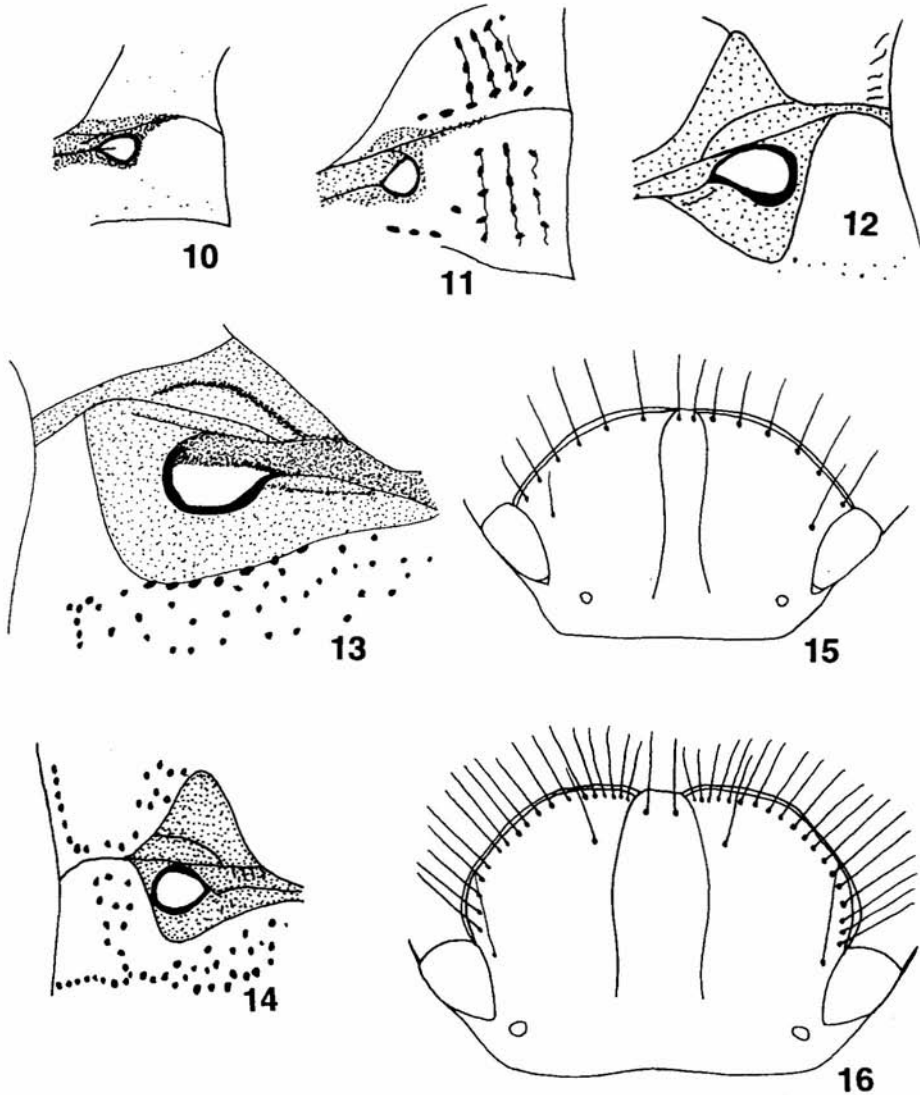
## COMPARATIVE NOTES

The new species can easily be separated from *A. obsoletus* by its more ovate body, i.e. c. 1.8 times longer than broad (*A. obsoletus* - body elongate, more parallel-sided, 1.9-2.1 times longer than broad), by the number of submarginal hair-like setae on each paraclypeus (a single seta in *A. papuanus*, 2-3 setae in *A. obsoletus*), and by the size of ocelli (*A. papuanus* - ocelli small, distance between them c. 8.3 ocellus diameter; *A. obsoletus* - ocelli larger, distance between them 5.0-6.5 ocellus diameter).

The two species differ also in the shape of paramere and the opening of male genital capsule.



DISTRIBUTION  
Papua New Guinea.



10, 16. *Byrsinus ochraceus* (Dist.); 11. *Alonips* sp.; 12. *Microporus* sp.; 13. *Choerocydnus foveolatus* WHITE; 14. *Geotomus* sp.; 15. *Eulonips pilylylus* (Ston.): 10-14 - evaporatoria, 15-16 - head

### Genus *Byrsinus* FIEBER

*Byrsinus* FIEBER, 1860: 83 (type-species: *Cydnus (Byrsinus) fossor* MULSANT & REY, 1866 (= *Byrsinus scarabaeoides* sensu FIEBER, 1861), subsequent designation by OSHANIN, 1912)).

*Cydnus* sg. *Psammozetus* MULSANT & REY, 1866: 18 (type-species: *Cydnus albipennis* COSTA, 1853, by monotypy), syn. with *Byrsinus* by OSHANIN, 1906: 8.

*Putonisca* HORVÁTH, 1919: 235 (type-species: *Cydnus pallidus* PUTON, 1887, by original designation), syn. with *Byrsinus* by LIS, 1993f: 81.

*Cydnus* [part] of authors, nec FABRICIUS, 1803.

*Aethus* [part] of authors, nec DALLAS, 1851.

#### DIAGNOSTIC COMBINATION

Body convex, small to medium-sized, 2.9-5.5 mm in length.

Head broader than long, lateral margins sometimes slightly turned down; clypeus free, though sometimes shorter than and laterally covered by paraclypei, nevertheless paraclypei never joined in front of clypeus; the latter with a subapical pair of peg-like or hair-like setae; each paraclypeus with a submarginal row of setigerous punctures bearing either numerous hair-like setae (in Australian species - fig. 16) or both peg-like and hair-like setae (the remaining species); ocelli present, well developed; eyes not large, each apically with one seta; antennae 5-segmented, short, 1st and 2nd segment cylindrical, 3rd, 4th and 5th rounded; rostrum 4-segmented, usually surpassing middle of mesosternum.

Pronotum broader than long, laterally with numerous long hair-like setae; anterior margin broadly concave; pronotal disc undivided into lobes; umbones somewhat swollen.

Scutellum longer than broad, sometimes with long hair-like setae on its disc; basal and lateral rows of punctures distinctly developed.

Corium divided into clavus, meso- and exocorium; clavus only slightly covered by scutellum, membranal margins almost straight; costa with numerous setigerous punctures bearing long setae, sometimes also punctures on clavus, meso- and exocorium with long hair-like setae; membrane normally developed, not reduced, usually surpassing the tip of abdomen.

Propleuron with distinct depression; evaporative area on mesopleuron very small, almost indistinct, sometimes absent, that of metapleuron better visible, but also very small; apex of peritrema modified into lobe-like auricle, without tooth on the posterior margin (fig. 10); osteolar opening visible in ventral view.

Sternites either smooth or punctured, punctures bearing long hair-like setae, especially numerous in lateral parts.

Fore tibiae distally expanded, outer margins with stout spines; dorsal side of hind tibiae slightly flattened, bearing neither spines nor setae; ventral side of hind tibiae with numerous stout spines and setae.

## SPECIES INCLUDED

***Byrsinus ochraceus* (DISTANT), n. comb.**

*Hiverus ochraceus* DISTANT, 1899: 223; BERGROTH, 1908: 150, 1909: 329; LIS, 1995b: 143.

## TYPE MATERIAL

Lectotype female (present designation): 3105; Tasmania; Type; Hobart 91-155; *Hiverus ochraceus* DIST. (type); Brit. Mus. Type No. Hem. 340 (BMNH); examined.

Paralectotypes: [1 female]: 3103; Paratype; Tasmania; Hobart 91-155; *Hiverus ochraceus* DIST. (BMNH); [1 female]: 3104; Paratype; Tasmania; Hobart 91-155; *Hiverus ochraceus* DIST. (BMNH); examined.

## NOTES

Examination of the type-material of *H. ochraceus* revealed that the species was not congeneric with African *H. hirtus* AMYOT & SERVILLE (type-species of *Hiverus* AMYOT & SERVILLE), and should be placed in the genus *Byrsinus* FIEBER, thus extending its distribution range to the Australian Region.

## DISTRIBUTION

Tasmania.

**Genus *Choerocydnus* WHITE**

*Choerocydnus* WHITE, 1841: 472 (type-species: *Choerocydnus foveolatus* WHITE, 1841, by monotypy).

## DIAGNOSTIC COMBINATION

Body broadly rounded (fig. 18), convex, medium-sized, 5.9-6.5 mm in length.

Head broader than long (fig. 17), margins rounded; clypeus free, subapically with a pair of hair-like setae; each paraclypeus submarginally with a row of setigerous punctures bearing hair-like setae; eyes not large, narrow, only slightly protruding and almost on two thirds of their width immersed in the head; ocelli very small, hardly visible; antennae 5-segmented, long, all segments cylindrical; rostrum 4-segmented.

Pronotum broader than long, anterior part distinctly narrower than the posterior; anterior margin angularly sinuate; lateral margins conspicuously curved, and submarginally with a row of hair-like setae; pronotal disc undivided into lobes; umbones not swollen.

Scutellum triangular, very long, reaching c. fourth fifths abdomen length; basal part of scutellar disc very broad, the apex very narrow, sharp or almost sharp.

Corium very long, as long as scutellum, its outer margins curved; clavomesocorial suture almost indistinct; suture between meso- and exocorium better

developed; costa with setigerous punctures bearing hair-like setae; membrane very short, sometimes reduced to a narrow membranal flap.

Propleuron with distinct depression; evaporative areas large, well defined; apex of peritreme modified into more or less elongated lobe-like auricle (fig. 13); osteolar opening visible in ventral view.

Fore tibiae expanded distally, margins with strong spines; hind tibiae more or less flattened, spined on margins.

#### SPECIES INCLUDED

##### *Choerocydnus coleopteroides* BERGROTH

*Choerocydnus coleopteroides* BERGROTH, 1909: 330; LIS, 1995b: 142.

#### TYPE MATERIAL

Syntype(s): Australia meridionalis, Yorketown (not located); not examined.

#### OTHER MATERIAL EXAMINED

Australia: Victoria, 1 female, *coleopteroides*, det. BERGROTH (HNHM).

#### DISTRIBUTION

Australia (Western Australia, Victoria).

##### *Choerocydnus foveolatus* WHITE

*Choerocydnus foveolatus* WHITE, 1841: 472; DALLAS, 1851: 124; DOHRN, 1859: 9; STAL, 1876: 21;

DISTANT, 1899: 221; BERGROTH, 1909: 331; LIS, 1995b: 142.

*Choerocydnus* [sic!] *foveolatus*: WALKER, 1867: 166.

*Hiverus aeneus* SIGNORET, 1883a: 362; LETHIERRY & SEVERIN, 1893: 74, n. syn.

*Choerocydnus aeneus*: BERGROTH, 1909: 331; LIS, 1995b: 142.

#### TYPE MATERIAL

Lectotype female (present designation) of *Choerocydnus foveolatus* WHITE: a; New Holland, 40, 12.16.268; Type; 1. *Choerocydnus foveolatus* A. WHITE; Brit. Mus. Type No. Hem. 307 (BMNH); examined.

Paralectotype female of *Choerocydnus foveolatus* WHITE: Paratype; New Holland; a; *foveolatus* identified by DALLAS; *Choerocydnus foveolatus* A. WHITE (BMNH); examined.

Lectotype female (present designation) of *Hiverus aeneus* SIGNORET: Type; Albany, BREWER; Pres by Perth Museum; B.M.1953-629; *Hiverus aeneus* SIGN. (BMNH); examined.

#### DISTRIBUTION

Australia.

**Genus *Cydnchoerus* n. gen.**

Type-species: *Choerocydnus nigrosignatus* BUCHANAN WHITE, 1878.

## DIAGNOSTIC COMBINATION

Body ovate, convex, medium-sized, 4.0-5.0 mm in length; dorsal surface testaceous with conspicuous blackish-brown patches.

Head broader than long, semicircular in outline; clypeus free, subapically with a pair of hair-like setae; each paraclypeus with a submarginal row of hair-like setae; eyes elongated, narrow, only slightly protruding (for two thirds width immersed in the head), apical seta absent; ocelli very small, almost invisible; antennae 4-segmented, 2nd segment very long, cylindrical, 3rd and 4th segments fusiform; rostrum 4-segmented.

Pronotum broader than long, trapezoid in outline; anterior margin angularly sinuate; each lateral margin with a submarginal row of setigerous punctures bearing long hair-like setae; pronotal disc undivided into lobes; umbones not swollen.

Scutellum elongatedly triangular, reaching two thirds abdomen length; apex tongue-like, its tip broadly rounded.

Corium broad; clavus shorter than scutellum, exocorium longer than scutellum; clavo-mesocorial suture absent; suture between meso- and exocorium developed only in basal two thirds; costa with setigerous punctures bearing long hair-like setae; membranal suture concave; membrane normally developed, not reduced.

Propleural depression deep; evaporative areas on meso- and metapleuron large, well defined; apex of peritreme modified into lobe-like, somewhat elongated auricle; osteolar opening visible in ventral view.

Fore tibia expanded distally, its margins with spines; hind tibia almost cylindrical, spined on margins.

## SPECIES INCLUDED

***Cydnchoerus nigrosignatus* (BUCHANAN WHITE), n. comb.**

*Choerocydnus nigrosignatus* BUCHANAN WHITE, 1878: 275; MYERS & CHINA, 1928: 379; WOODWARD, 1953: 310 & 315; LIS, 1995b: 143.

*Choerocydnus albosignatus* [lapsus]: SIGNORET, 1882b: 167; LETHIERRY & SEVERIN, 1893: 68.

*Choenocydnus* [sic!] *nigrosignatus*: HUTTON, 1898: 172.

*Choerocydnus nigrisignata* [sic!]: KIRKALDY, 1909: 25.

*Chaerocydnus* [sic!] *nigrosignatus*: MYERS, 1922: 4, 1926: 510.

*Adrisa nigrosignata*: BERGROTH, 1909: 331.

## TYPE MATERIAL

Lectotype male (present designation); Type; *Choerocydnus nigrosignatus* B. W., Type; New Zealand; 6. *Choerocydnus nigrosignatus* n.sp.; Pres. by Perth Museum, B.M. 1953-629 (BMNH); examined.

Paralectotypes: [male and female] the same data as the lectotype (BMNH); [male] Paratype; New Zealand, WAKEFIELD leg.; *Choerocydnus nigrosignatus*; Pres. by Perth Museum, B.M. 1953-629 (BMNH); examined.

OTHER MATERIAL EXAMINED

New Zealand: Neuseeland, 1 male, Coll. SIGNORET, *Choerocydnus bisignatus* BUCH. WHITE, *foveolatus* det. SIGNOR. (NhMW).

DISTRIBUTION

Australia, New Zealand.

**Genus *Eulonips* n. gen.**

Type-species: *Alonips pilylus* SIGNORET, 1881.

DIAGNOSTIC COMBINATION

Body elongately ovate, convex, medium-sized, c. 4.0-4.5 mm in length.

Head broadly rounded (fig. 15); clypeus free, subapically with a pair of hair-like setae; each paraclypeus with a submarginal row of hair-like setae; eyes narrow, elongated, slightly protruding, each with the apical spine; ocelli very small, sometimes hardly visible; antennae 5-segmented, segments cylindrical; rostrum 4-segmented.

Pronotum broader than long, subquadrate in outline; its disc undivided into lobes; anterior margin angularly sinuate; lateral margins with a row of submarginal setigerous punctures bearing hair-like setae; umbones slightly swollen.

Scutellum longer than broad, elongatedly triangular; apex flap-like, its tip broadly rounded.

Corium divided into clavus, meso- and exocorium; costa with setigerous punctures bearing hair-like setae; membrane normally developed; membranal suture almost straight.

Propleural depression deep; evaporative areas on both meso- and metapleuron very small, just outlining the peritreme, sometimes almost invisible; lateral areas of meso- and metapleuron coarsely punctured; apex of peritreme modified into lobe-like auricle.

Fore tibiae compressed and expanded, hind tibiae flattened on inner surface.

SPECIES INCLUDED

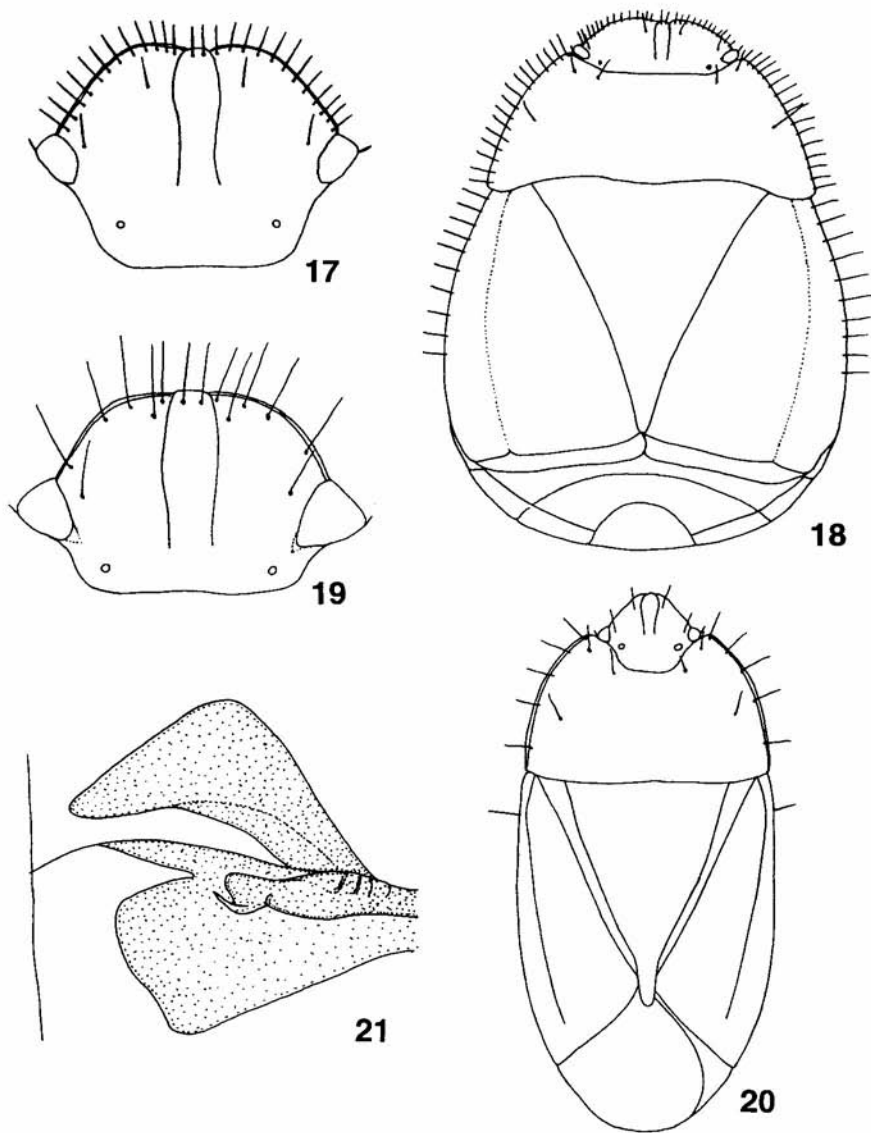
***Eulonips niger* (SIGNORET), n. comb.**

*Geotomus? niger* SIGNORET, 1883c: 219.

*Geotomus niger*: LETHIERRY & SEVERIN, 1893: 72; SYNAVE, 1969: 2; LIS, 1995b: 143.

## TYPE MATERIAL

Lectotype male (designated by SYNAVE, 1969: 2): Tasmania, C. Allport; Coll. R.I.Sc.N.B., Australia; Type; 2882; *Chaerocydnus niger* SIGN., Tasmania; Holotype; *Geotomus niger* SIGNORET (IRSNB); examined.



17-18. *Chaerocydnus foveolatus* WHITE; 19. *Geotomus distanti* SIGN.; 20. *Geotomus alexandria* (DIST.); 21. *Lactistes obesipes* SIGN.: 17, 19 - head, 18, 20 - body outline, 21 - evaporatoria

## DISTRIBUTION

Tasmania.

*Eulonips pilitylus* (SIGNORET), n. comb.*Alonips pilitylus* SIGNORET, 1881a: 654; LIS, 1994b: 155, 1995b: 142.*Geotomus (Alonips) pilitylus*: SIGNORET, 1883c: 218.*Geotomus pilitylus*: LETHIERRY & SEVERIN, 1893: 73.

## TYPE MATERIAL

Lectotype female (present designation): Australia, Somerset, I-75, L.M. D'ALBERTIS; Typus; *Alonips pilitylus* SIGN.; *Alonips pilitylus* SIGN. Typus!; *Geotomus pilitylus* SIGN. (MCSN); examined.

Paralectotype female: Australia, Somerset, I-75, L.M. D'ALBERTIS; *pilitylus* det. SIGNORET (NhMW); examined.

## DISTRIBUTION

Australia (Queensland).

**Genus *Fromundus* DISTANT***Fromundus* DISTANT, 1901: 582 (type-species: *Fromundus opacus* DISTANT, 1901, by monotypy).*Brachysolen* HORVÁTH, 1919: 269 (type-species: *Brachysolen opacus* HORVÁTH, 1919, by original designation), syn. with *Fromundus* by LIS, 1994b: 173.*Geotomus* [part] of authors, nec MULSANT & REY, 1866.

## DIAGNOSTIC COMBINATION

Body elongatedly ovate (fig. 23), medium-sized, c. 3.0-6.9 mm in length.

Head broader than long, margins rounded; clypeus usually as long as paraclypei, subapically with or without a pair of hair-like setae; each paraclypeus with submarginal setigerous punctures bearing hair-like setae only; eyes from small to moderately large, protruding, each with the apical spine; ocelli present, distinctly developed; antennae 5-segmented, segments cylindrical or almost cylindrical. Pronotum broader than long, narrowed anteriorly, undivided into lobes; anterior margin deeply angularly sinuate; umbones not swollen; each lateral margin with a row of setigerous punctures.

Scutellum longer than broad; basal and lateral rows of punctures clearly developed; apex tongue-like, usually elongated.

Corium divided into clavus, meso- and exocorium; clavus with rows of punctures; mesocorium with two rows of punctures paralleling clavo-mesocorial suture; costa either without or with a single setigerous puncture; membranal suture almost straight, membrane normally developed, not reduced.

Propleuron with punctures in depression, sometimes also on anterior and posterior convexity; evaporative areas on meso- and metapleuron distinct, large;



apex of peritreme kidney-shaped, posteriorly with tooth-like process being a part of the anterior ridge of peritreme.

Fore tibiae expanded, marginally with numerous spines and setae; mid and hind tibiae neither broadened nor compressed; hind femora usually with small subapical tooth on the dorsal margin.

## SPECIES INCLUDED

*Fromundus pygmaeus* (DALLAS)

- Aethus pygmaeus* DALLAS, 1851: 120.  
*Geotomus pygmaeus*: SIGNORET, 1881a: 650, 1883d: 51; LETHIERRY & SEVERIN, 1893: 73; KIRKALDY, 1905: 359; CHINA, 1930: 89; RUCKES, 1963: 316; FROESCHNER, 1967: 16; LIS, 1993a: 16, 1994a: 322.  
*Cydnus rorociliatus* ELLENRIEDER, 1862: 139, syn. with *G. pygmaeus* by SIGNORET, 1881a: 650.  
*Aethus nanulus* WALKER, 1867: 162, syn. with *G. pygmaeus* by DISTANT, 1899: 222.  
*Aethus pallidicornis* VOLLENHOVEN, 1868a, syn. with *G. pygmaeus* by SIGNORET, 1883d: 51.  
*Geotomus subtristis* BUCHANAN WHITE, 1877: 110, syn. with *G. pygmaeus* by SIGNORET, 1883d: 51.  
*Geotomus jucundus* BUCHANAN WHITE, 1877: 111, syn. with *G. pygmaeus* by SIGNORET, 1883d: 51.  
*Aethus nitens* KIRBY, 1900: 127, syn. with *G. pygmaeus* by GIBSON-HILL, 1950: 208.  
*Geotomus Lethierryi* SIGNORET, 1883d: 50, syn. with *F. pygmaeus* by LIS, 1994b: 181.  
*Geotomus macroevaporatorius* MOIZUDDIN & AHMAD, 1990: 318, syn. with *F. pygmaeus* by LIS, 1994b: 181.  
*Fromundus pygmaeus*: LIS, 1994b: 181, 1995b: 143.

## TYPE MATERIAL

Lectotype female of *Aethus pygmaeus* DALLAS (designated by LIS, 1994b: 182): [India]: Type; E. Ind.; 64. *Aethus pygmaeus* DALLAS; Brit. Mus. Type No. Hem. 330; Lectotype, det. J. A. LIS (BMNH); examined.

## OTHER MATERIAL EXAMINED

Papua New Guinea: Kokoda, 1.200 ft., 63 males 90 females, viii.1933, L.E. CHEESMAN, B.M. 1933-577 (BMNH, JAL); Mt. Lamington Dist., Northern Division, Papua, 3 females V 1927, C.T. MC NAMARA, Brit. Mus. 1933-420 (BMNH).

New Caledonia: Kanala, 1 male 1 female 26.2.12 (BMNH, JAL); Noumea, New Caledonia, 1 male 7/1900 Jan. (BMNH); Tiwaka, Poindimié, 20m alt, 8 males 11 females 22.XI.1983, L. MATILE, Muséum Paris, Nouvelle Calédonie, Mission D.&L. MATILE, nov. déc. 1983 (MNHN, JAL).

New Hebrides: Villa, 1 male VI 1925, P.A. BUXTON (BMNH); Tanna Lenakel, 4 females I.1981, N. KRAUSS, B.M. 1981-121 (BMNH).

Marquesas: Nuku Hiva, Marquesas, 3 male 3 female, Jan. 1925, In pandanus swamp, St. George Expedn., C.L. COLLENETTE, Brit. Mus. 1925-488 (BMNH, JAL); Fatu Hiva, Marquesas, 1 male 300 ft, 6.I.1925, St. George Expedn., C.L. COLLENETTE, Brit. Mus. 1925-488 (BMNH); Iles Marquises, Taiohae, P. SIMÉON DELMAS 1927, 5 males 23 females (MNHN, JAL).

Samoa: Samoa, 5 males 1 female, Dr. K. FRIEDRICHs leg., III 1913 (ZIZM); Upolu, Samoa, 4 males 9 females, RECHINGER, *Geotomus pygmaeus* (DALL.), R.C. FROESCHNER (NhMW).

Fiji: Fiji Islands, Vanua Levu, J.P. & M.J. DUFFELS, SavuSavu, Travelodge, Hotel, 1 female 12-II-1979, Stat. 31, gardens, at light (ZMA); Fiji, Rotuma I., 1 male 1 female 17-27 iv 1971, G.S. ROBINSON, B.M. 1972-146 (BMNH).

#### DISTRIBUTION

Australia, New Guinea, Bismarck Archipelago (Manus, Mussau, New Ireland, New Britain), Solomon Isls, Fiji, Marquesas, Micronesia, New Caledonia, Lifu, New Hebrides, Samoa, Society Isls., [Oriental Region, Hawaii].

### Genus *Geotomus* MULSANT & REY

*Geotomus* MULSANT & REY, 1866: 324 (type-species: *Cydnus punctulatus* COSTA, 1847, subsequent designation by DISTANT, 1902).

*Moonta* DISTANT, 1911: 338 (type-species: *Moonta alexandria* DISTANT, 1911, by monotypy), n. syn.

#### DIAGNOSTIC COMBINATION

Body elongated (fig. 20), moderately convex, medium-sized.

Head broader than long, margins rounded (fig. 19); clypeus free, usually as long as paraclypei, its subapical part with or without a pair of hair-like setae; each paraclypeus with submarginal setigerous punctures bearing hair-like setae; eyes from small to moderately large, protruding, each with the apical spine; ocelli present, well developed; antennae 5-segmented, segments cylindrical.

Pronotum broader than long, narrowed anteriorly, disc undivided into lobes; anterior margin angularly sinuate, posterior almost straight; umbones not swollen; each lateral margin with a row of setigerous punctures.

Scutellum longer than broad; basal and lateral rows of punctures distinctly developed; apex tongue-like, elongated.

Corium divided into clavus, meso- and exocorium; clavus with rows of punctures; mesocorium with two rows of punctures paralleling clavo-mesocorial suture; costa with or without setigerous punctures; membranal suture almost straight, only slightly sinuate; membrane normally developed, reaching or surpassing the tip of abdomen.

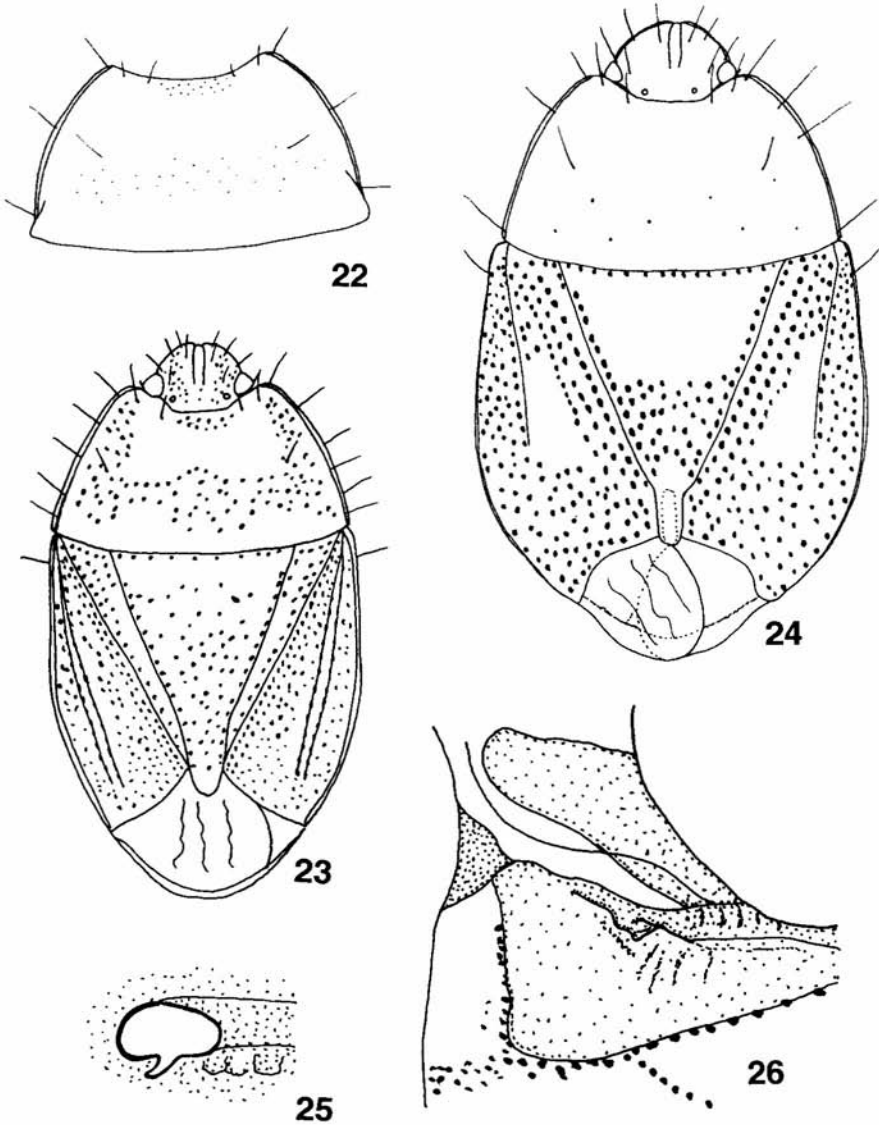
Propleural depression, sometimes also anterior convexity with distinct punctures; evaporative areas occupying c. half of meso- and metapleuron, apex of peritreme modified into lobe-like auricle (fig. 14), osteolar opening on ventral side.

Sternites punctured or transversely wrinkled laterally.

Fore tibiae distally expanded, marginally with numerous spines and setae; mid and hind tibiae slightly compressed, especially on dorsal side.

## NOTE

The Australian species represent the nominate subgenus; the subgenus *Barbaraethus* LIS is known from the north-western area of the Oriental Region (LIS, 1994b).



22. *Macroscyctus abditus* LIS; 23. *Fromundus pygmaeus* (DALL.); 24. *Peltoscyctus solomonensis* LIS; 25. *Aethus philippinensis* DALL.; 26. *Macroscyctus australis* (ERICHs.): 22 - pronotum, 23-24 - body outline, 25 - apex of peritreme, 26 - evaporatoria

## SPECIES INCLUDED

***Geotomus (s. str.) alexandria* (DISTANT), n. comb.**

*Moonta alexandria* DISTANT, 1911: 338; LIS, 1995b: 145.

## TYPE MATERIAL

Lectotype male (present designation) of *Moonta alexandria* DISTANT: Alexandria, N. Australia, W. STALKER, 1907-261; Type; *Moonta alexandria* DIST. type; Brit. Mus. Type No. Hem. 308 (BMNH); examined.

Paralectotype male of *Moonta alexandria* DISTANT: Alexandria, N. Australia, W. STALKER, 13-20.III.06, 1907-261; *Moonta alexandria* DISTANT (paratype) (BMNH); examined.

## DISTRIBUTION

North Australia.

***Geotomus (s. str.) breweri* SIGNORET**

*Geotomus (Melanaethus) Breweri* SIGNORET, 1883c: 214

*Geotomus Breweri*: LETHIERRY & SEVERIN, 1893: 72.

*Geotomus breweri*: LIS, 1995b: 143.

## TYPE MATERIAL

Syntype(s): Albany, West-Australie, BREWER; coll. BUCH. WHITE (BMNH); not examined.

## DISTRIBUTION

West Australia.

***Geotomus (s. str.) distanti* SIGNORET**

*Geotomus Distanti* SIGNORET, 1883d: 58; LETHIERRY & SEVERIN, 1893: 72.

*Geotomus distanti*: LIS, 1995b: 143.

## TYPE MATERIAL

Lectotype female (present designation): Austral., Coll. SIGNORET; *Distanti*, det. SIGNORET; Type, *Distanti* SIGN., labelled by R.C. FROESCHNER '59 (NhMW); examined.

## DISTRIBUTION

Australia.

***Geotomus (s. str.) gracilipes* SIGNORET**

*Geotomus gracilipes* SIGNORET, 1883c: 213; LETHIERRY & SEVERIN, 1893: 72, Lis, 1995b: 143.

## TYPE MATERIAL

Lectotype female (present designation) of *Geotomus gracilipes* SIGNORET: Tielder, Adelaide, *gracilipes*; *Geotomus? gracilipes* SIGT., Adelaide; Museum Leiden, *Geotomus gracilipes* SIGN., 66; Holotypus (NNML); examined.

## DISTRIBUTION

South Australia.

***Geotomus (s. str.) oceanicus* SIGNORET**

*Geotomus Oceanicus* SIGNORET, 1881a: 651; LETHIERRY & SEVERIN, 1893: 72.

*Geotomus oceanicus*: SIGNORET, 1883d: 53; Lis, 1995b: 143.

## TYPE MATERIAL

Lectotype male (present designation): Australia, Somerset, I-75, L.M. D'ALBERTIS; Typus; *oceanicus* SIGN.; *Geotomus oceanicus* SIGN. (MCSN); examined.

## DISTRIBUTION

Australia (Queensland).

**Genus *Lactistes* SCHIÖDTE**

*Lactistes* SCHIÖDTE, 1847: 456 (type-species: *Lactistes vericulatus* SCHIÖDTE, 1847, subsequent designation by DISTANT, 1902).

## DIAGNOSTIC COMBINATION

Body robust, elongatedly or roundedly ovate in outline, dorsally convex, medium-sized, c. 5.0-10.0 mm in length.

Head broader than long; lateral margins more or less upcurved; clypeus shorter than paraclypei; each paraclypeus with 3 submarginal setigerous punctures bearing hair-like setae; eyes prominent, each with the apical spine; ocelli present, distinctly developed; antennae short, 5-segmented, segments more or less rounded.

Pronotum broader than long, narrowed anteriorly, undivided into lobes; anterior margins concavely sinuate; umbones more or less swollen; lateral margins with a row of submarginal setigerous punctures.

Scutellum elongated; basal and lateral rows of punctures more or less distinct; apex tongue-like.

Corium divided into clavus, meso- and exocorium, punctured; mesocorium with two rows of punctures paralleling clavo-mesocorial suture; costa with one or several setigerous punctures; membrane normally developed, not reduced, usually surpassing the tip of abdomen.

Anterior and posterior convexity of propleuron conspicuously developed, depression deep; evaporative area on mesopleuron with longer or shorter polished band near the posterior margin, evaporative area on metapleuron with polished wedge-shaped band directed towards the apex of peritreme; the latter with claw-like process posteriorly (fig. 21).

Sternites smooth in the middle, laterally either more or less wrinkled (in *Lactistes* s.str.) or distinctly punctured (in sg. *Eolactistes* LINNAVUORI).

Fore tibiae dilated apically, with spines on the entire outer margin in sg. *Eolactistes*, or more or less elongated, narrowed and curved apically with spines present only on basal two thirds of the outer margin in *LACTISTES* s.str.; fore tarsus never inserted apically; hind tibiae slightly flattened.

#### NOTE

The type-species of the genus (*L. vericulatus*) is an African species. The only Australian species represents the nominate subgenus.

#### SPECIES INCLUDED

##### *Lactistes* (s. str.) *obesipes* SIGNORET

*Lactistes obesipes* SIGNORET, 1880: CLXXII; LETHIERRY & SEVERIN, 1893: 61; LIS, 1995b: 144.

*Lactistes obesipes* SIGNORET, 1881e: 52, objective synonym of *L. obesipes* SIGNORET, 1880.

#### TYPE MATERIAL

Lectotype female (present designation): Austral., Coll. SIGNORET; *obesipes*, Coll. SIGNORET; Typus, *obesipes* SIGN., labelled by R.C. FROESCHNER '59 (NhMW); examined.

#### DISTRIBUTION

Australia.

##### Genus *Macroscytus* FIEBER

*Macroscytus* FIEBER, 1860: 83 (type-species: *Cydnus brunneus* FABRICIUS, 1803, subsequent monotypy by FIEBER, 1861).

*Hahnia* ELLENRIEDER, 1862: 139 (type-species: *Hahnia gibbula* ELLENRIEDER, 1862, by monotypy), name preoccupied by *Hahnia* KOCH, 1841 [in *Aranea*], syn. with *Macroscytus* by LIS, 1994b: 209.

*Philapodemus* KIRKALDY, 1910: 8 [as a new name for *Hahnia* ELLENRIEDER, 1862] (type-species: *Hahnia gibbula* ELLENRIEDER, 1862, by automatic fixation), syn. with *Macroscytus* by LIS, 1994b: 209.

## DIAGNOSTIC COMBINATION

Body ovate, from medium-sized to large, c. 5.7-12.5 mm in length.

Head broadly rounded, dorsal surface usually impunctate; clypeus free, with or without a pair of subapical hair-like setae; each paraclypeus submarginally with one or several hair-like setae; eyes rounded, large, protruding; ocelli distinctly developed; antennae 5-segmented, slender, long.

Pronotum broader than long, narrowed apically; anterior margin angularly sinuate; pronotal disc either undivided into lobes or with transverse postmedial impression (more or less developed); each lateral margin with submarginal setigerous punctures; umbones strongly swollen, protruding caudolaterally, concealing posterolateral margins (fig. 22).

Scutellum longer than broad; basal and lateral rows of punctures distinctly developed; apex elongated, its tip rounded.

Corium divided into clavus, meso- and exocorium; mesocorium with two distinct rows of punctures paralleling clavo-mesocorial suture; costa with or without setigerous punctures; membranal suture almost straight, membrane normally developed, not reduced.

Propleuron with deep, usually punctured depression; meso- and metapleuron with large evaporative areas, that of mesopleuron posteriorly with polished band; peritreme differentiated, its apex posteriorly with more or less blunt lobe (fig. 26).

Sternites from impunctate to distinctly punctured and wrinkled, usually at least a patch of tiny punctures is present close to the spiracles.

Fore tibiae expanded apically, margins armed with spines; male hind femora usually with one subapical tooth on dorsal margin, and several more or less distinct teeth or spines on ventral margin; female hind femora without or with small subapical tooth on dorsal margin, and several setae on ventral margin; hind tibiae slender, basally more or less reflected and usually with more or less distinct tubercles in male specimens.

## SPECIES INCLUDED

*Macroscytus abditus* LIS

*Macroscytus abditus* LIS, 1993c: 41, 1995b: 144.

## TYPE MATERIAL

Holotype male: Papua New Guinea, East. High. Prov., H.A.E.S. Alyura, 1550 m., 30 Nov. 1976, E.S.C. SMITH, Attr. to U.V. light; 27114; A 424; C.I.E. Coll., A. 9461, Holotype, *Macroscytus abditus* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

New Guinea.

***Macroscytus annulipes* HORVÁTH**

*Macroscytus annulipes* HORVÁTH, 1919: 242; FROESCHNER, 1967: 17; LIS, 1995b: 144.

## TYPE MATERIAL

Syntypes: Nova Guinea, Friedrich-Wilhelmshafen ad sinum Astrolabicum, L. BIRO 1896 et 1901 (HNHM); not examined.

## OTHER MATERIAL EXAMINED

Bismarck Archipelago: Bismarck Arch., 1 male 1 female, DAHL, Zool. Mus. Berlin (MNHU).

## DISTRIBUTION

New Guinea, Bismarck Archipelago (Mussau, New Britain).

***Macroscytus aquilus* FROESCHNER**

*Macroscytus aquilus* FROESCHNER, 1967: 17; LIS, 1995b: 144.

## TYPE MATERIAL

Holotype male: New Ireland, Lemkamin, 12 April 1962, Noona Dan Exp. 61-62; Caught by Mercury-light; Holotype, *Macroscytus aquilus* FROESCHNER 65 (ZMC); examined.

## DISTRIBUTION

Bismarck Archipelago (New Ireland).

***Macroscytus astrolabicus* HORVÁTH**

*Macroscytus astrolabicus* HORVÁTH, 1919: 242; LIS, 1994a: 322, 1995b: 144.

## TYPE MATERIAL

Syntypes: Nova Guinea, Erimo et Montes Hansemanniani ad sinum Astrolabicum, L. BIRO, 1897 et 1901 (HNHM); not examined.

## DISTRIBUTION

New Guinea.

***Macroscytus australis* (ERICHSON)**

*Cydnus australis* ERICHSON, 1842: 275; STAL, 1876: 26.

*Aethus australis*: DALLAS, 1851: 116; DOHRN, 1859: 9; WALKER, 1867: 162.

*Cydnus Leptospermi*: STAL, 1876: 26.

*Aethus Leptospermi* DALLAS, 1851: 119; DOHRN, 1859: 9, nom. nudum.



- Aethus leptospermi* (DALLAS): WALKER, 1867: 162; HUTTON, 1874: 170.  
*Geotomus leptospermi* (DALLAS): HUTTON, 1898: 172; BUCHANAN WHITE, 1878: 275.  
*Aethus Leptospermi* WHITE in BUTLER, 1874: 25, syn. with *Hahnia australis* by SIGNORET, 1883e: 483.  
*Aethus lifuanus* MONTROUZIER, 1861: 62; STAL, 1876: 27, syn. with *Macroscythus australis* by SIGNORET, 1881a: 647.  
*Aethus lifuanus*: WALKER, 1867: 162.  
*Hahnia (Cydnus) australis*: SIGNORET, 1883e: 483.  
*Hahnia Australis*: LETHIERRY & SEVERIN, 1893: 71.  
*Hahnia australis*: DISTANT, 1920: 145; KIRKALDY, 1909: 25 [part]; MYERS, 1922: 4, 1926: 510; MYERS & CHINA, 1928: 379.  
*Geobia australis*: FROGGATT, 1902: 1, 1907: 328.  
*Geocnethus australis*: HORVATH, 1919: 246.  
*Philapodemus australis*: WOODWARD, 1953: 311 & 315, 1956: 428; HICKMAN, 1978: 45.  
*Geotomus Landsbergi* [lap.] SIGNORET, 1883d: 48, n. syn.  
*Macroscythus lansbergi*: LIS, 1991b: 185.  
*Macroscythus australicus* [sic!]: SIGNORET, 1881a: 647.  
*Macroscythus australis*: LIS, 1995b: 144.  
nec *Hahnia australis*: KIRKALDY, 1909: 25 [part].

## TYPE MATERIAL

Lectotype female (present designation) of *Cydnus leptospermi* WHITE: Type; New Zealand; *Cydnus Leptospermi* WHITE, on *Leptosp.* bushes, HOOK; Brit. Mus. Type. No. Hem. 306 (BMNH); examined.

Paralectotype female of *Cydnus leptospermi*: Paratype; New Zealand; *leptospermi* identified by DALLAS; *Cydnus Leptospermi* A. WHITE (BMNH); examined.

Lectotype male (present designation) of *Aethus lifuanus* MONTROUZIER: *Geobia Lifuana* (m), Lifu; Lifu, coll. SIGNORET; *australis* det. SIGNORET (NhMW); examined.

Lectotype female (designated by SYNAVE, 1969: 2) of *Geotomus lansbergi* SIGNORET: [Indonesia]: Java Oriental, M. Ardjoeno, coll. R.I.Sc.N.B.; VAN LANSBERG; *Macroscythus Lansbergi*; Type; Holotype; *Geotomus lansbergi* SIGNORET (IRSNB); examined.

## OTHER MATERIAL EXAMINED

Australia: N. S. Wales, Ryde, 2 males, *Geocnethus australis* (HNHM); Brisbane, 1 female, Museum Godeffroy, No. 2890 (ZIZM); Australie, Queensland, 1 male, R. OBERTHUR 1899 (MNHN).

Tasmania: Tasmanic, 1 male 1 female, Verreaux 3-47 (MNHN).

New Zealand: Neuseeland, Coll. SIGNORET, 1 male, *australis* det. SIGNORET (NhMW).

New Caledonia: Nov. Calédonia, Canala, 1 male 1 female, DELACOUR 1869 (MNHN).

## DISTRIBUTION

Australia (Northern Territory, South Australia, Queensland, Victoria, New South Wales), Loyalty Islands (Lifu, New Caledonia), New Zealand, Tasmania, [Java (one record)]. The record from Ceylon (KIRKALDY, 1909) was an error.

***Macroscytus cheesmanae* LIS**

*Macroscytus cheesmani* LIS, 1993c: 44; 1994a: 322.

*Macroscytus cheesmanae*: LIS, 1995b: 144 [emend.].

## TYPE MATERIAL

Holotype male: Papua, Kokoda, 1,200 ft., VIII.1933, L.E. CHEESMAN, B.M. 1933-427; Holotype, *Macroscytus cheesmani* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

New Guinea.

***Macroscytus dilatatus* (SIGNORET)**

*Cydnus dilatatus* SIGNORET, 1881a: 631, LETHIERRY & SEVERIN, 1893: 66.

*Aethus dilatatus*: SIGNORET, 1882a: 27 [part].

*Macroscytus dilatatus*: LIS, 1995b: 144.

nec *Aethus dilatatus*: SIGNORET, 1882a: 27 [part].

## TYPE MATERIAL

Lectotype male (designated by LIS, 1995b: 144): Australia, Somerset, I.75, L.M. D'ALBERTIS; *dilatatus* det. SIGNORET; Lectotype, *dilatatus* SIGN., labelled by R.C. FROESCHNER 59 (NhMW); examined.

## DISTRIBUTION

Australia.

***Macroscytus honiarensis* LIS**

*Macroscytus honiarensis* LIS, 1993a: 16, 1995b: 145.

## TYPE MATERIAL

Holotype male: Solomon IIs, Guadalcanal I., Honiara, 13-16.IX.1953, J.D. Bradley, M.V. light; Holotype, *Macroscytus honiarensis* LIS, det. J.A. LIS (BMNH); examined.

## DISTRIBUTION

Solomon Islands.

***Macroscytus lansburyi* LIS**

*Macroscytus lansburyi* LIS, 1994a: 323, 1995b: 145.

## TYPE MATERIAL

Holotype male: Papua New Guinea, Madang Prov., Nagada Harbour, mvl't water

trap, 3-20.V.1992, I. LANSBURY; Holotype, *Macroscytus lansburyi* LIS, det. J.A. LIS (HEC); examined.

## DISTRIBUTION

New Guinea.

***Macroscytus papuanus* HORVÁTH**

*Macroscytus papuanus* HORVÁTH, 1919: 243; LIS, 1995b: 145.

## TYPE MATERIAL

Lectotype male (present designation): N. Guinea, BIRÓ 96; Lemien Berlinhafen; *papuanus* det. HORVÁTH; Lectotype, *Macroscytus papuanus* HORV., labelled by R.C. FROESCHNER '59 (HNHM); examined.

## OTHER MATERIAL EXAMINED

Papua New Guinea: Kokoda, 1 female, 1.200 ft., VIII.1933, L.E. CHEESMAN, B.M. 1933-427 (BMNH); Madang Dist., Finisterre Mts, 2 males Damanti, 3 females Budemu, 1 female Moro, M.E. BACCHUS, B.M. 1965-120 (BMNH, JAL).

## DISTRIBUTION

New Guinea.

***Macroscytus piceus* (WESTWOOD)**

*Cydnus piceus* WESTWOOD, 1837: 18; STAL, 1876: 26.  
*Acatalectus piceus*: DALLAS, 1851: 123; DOHRN, 1859: 9; WALKER, 1867: 165.  
*Adrisa picea*: STAL, 1876: 20; SIGNORET, 1881d: 213; LETHIERRY & SEVERIN, 1893: 63; DISTANT, 1900: 820.  
*Macroscytus piceus*: LIS, 1995b: 145.

## TYPE MATERIAL

Lectotype female (designated by LIS, 1995b: 145): N[ova] H[ollandia]; Type; Type Hem. No 62, *Cydnus piceus* WESTWOOD, Hope Dept. Oxford; Type, WESTW. (HOPE), C. Hemipt. 1837, Part I, page 18, DISTANT P.Z.S., 1900, p. 807-825; *Adrisa picea* WESTW. (HEC); examined

## DISTRIBUTION

Australia, Tasmania.

***Macroscytus sumatranus* LIS**

*Macroscytus sumatranus* LIS, 1994b: 228.

## TYPE MATERIAL

Holotype male: Banjoewangi, Java 1911, MAC GILLAVRY, coll. Dr. D. MAC

GILLAVRY; Holotype, det. J.A. LIS; *Macroscythus sumatranus* LIS, det. J.A. LIS (ZMA); examined.

Paratype female: Timor, 1920, DOUGLAS, coll. Dr. D. MAC GILLAVRY; Paratype, det. J.A. LIS; *Macroscythus sumatranus* LIS, det. J.A. LIS (ZMA); examined.

OTHER MATERIAL EXAMINED

Timor: Oesusu, ca. 500m alt., Timor is., 1 female 20.II.1989, K. FUJITA leg. (NSMT).

DISTRIBUTION

Timor, [Oriental Region].

*Macroscythus transversus* (BURMEISTER)

*Cydnus transversus* BURMEISTER, 1834: 291.

*Acatalectus transversus* WALKER, 1867: 164, syn. by DISTANT, 1899: 222.

*Adrisa transversa*: LETHIERRY & SEVERIN, 1893: 63; BREDDIN, 1906:10.

*Macroscythus transversus*: SIGNORET, 1881a: 642, 1883e: 476; LETHIERRY & SEVERIN, 1893: 71; FROESCHNER, 1967: 21; LIS, 1994b: 231, 1995b: 145.

TYPE MATERIAL

Lectotype female of *Cydnus transversus* BURMEISTER (designated by LIS, 1991b: 187): [Philippines]: Manila, ERCHROHOLTZ; 610; 690; Manila; Type; *Cydnus transversus mihi*; Zool. Mus. Berlin, Lectotype, det. J.A. LIS (MNHU); examined.

Lectotype male of *Acatalectus transversus* WALKER (designated by LIS, 1994b: 232): [Indonesia]: Aru; SAUNDERS 65.13; WALLACE; Type; *Acatalectus transversus* WALKER; Brit. Mus. Type No. Hem. 324; Lectotype det. J.A. LIS (BMNH); examined.

DISTRIBUTION

New Guinea, Aru, Moluccas, Bismarck Archipelago (New Ireland), [Philippines, Java, Sulawesi].

Genus *Microporus* UHLER

*Microporus* UHLER, 1872: 394, 1876: 275 (type-species: *Microporus obliquus* UHLER, 1872, by monotypy).

*Cydnus* [part] of authors, nec FABRICIUS, 1803.

*Aethus* [part] of authors, nec DALLAS, 1851.

DIAGNOSTIC COMBINATION

Body ovate, convex, medium-sized.

Head broader than long, margins rounded; clypeus free, almost parallel-sided, subapically with a pair of peg-like setae; each paraclypeus with a submarginal row of setigerous punctures bearing both peg-like and hair-like setae; ocelli present, distinctly developed; eyes large, protruding, each with the apical seta; antennae 5-

segmented, moderately slender, 1st and 2nd segment cylindrical, 3rd, 4th and 5th slightly rounded; rostrum 4-segmented.

Pronotum broader than long, laterally with numerous hair-like setae; anterior margin angularly sinuate; umbones swollen.

Scutellum broad, only slightly longer than broad, though sometimes somewhat broader than long; apex broadly rounded; basal and lateral rows of punctures conspicuous.

Corium divided into clavus, meso- and exocorium; mesocorium with two rows of punctures paralleling clavo-mesocorial suture; costa with numerous setigerous punctures bearing hair-like setae; membranal suture almost straight, membrane normally developed, not reduced.

Anterior and posterior convexity of propleuron well developed, depression deep; evaporatorium on mesopleuron large, occupying at least one third of the surface, evaporatorium on metapleuron usually large, though sometimes only a little outlining the peritreme; apex of peritreme either lobe-like or loop-like (fig. 12), osteolar opening visible in ventral view.

Sternites laterally with transverse rugae, usually also punctured; lateral margins with two long setae on each sternite.

Fore tibiae distally expanded, with stout spines on margins; dorsal side of hind tibiae flattened and bearing neither setae nor spines, margins with long spines and setae, ventral side of hind tibiae slightly flattened, bearing only a few long spines.

#### SPECIES INCLUDED

##### *Microporus gestroi* (SIGNORET)

*Cydnus Gestroi* SIGNORET, 1881a: 638, 1882b: 148; LETHIERRY & SEVERIN, 1893: 66.  
*Microporus gestroi*: LIS, 1995b: 145.

#### TYPE MATERIAL

Syntype(s): Australie, Somerset, D'Albertis (MCSN); not examined.

#### DISTRIBUTION

Australia (Queensland).

##### *Microporus ovatulus* (DALLAS)

*Aethus ovatulus* DALLAS, 1851: 117; DOHRN, 1859: 9; WALKER, 1867: 162; STAL, 1876: 26.  
*Cydnus ovatulus*: LETHIERRY & SEVERIN, 1893: 67.  
*Cydnus (Aethus) ovatulus*: SIGNORET, 1882b: 153.  
*Microporus ovatulus*: LIS, 1995b: 145.

#### TYPE MATERIAL

Lectotype male (present designation): New Holl.; a; 87. *Aethus ovatulus* DALLAS; Type; Brit. Mus. Type No. Hem. 299 (BMNH); examined.

Paralectotype male: New Holl.; a; *ovatulus*; Paratype (BMNH); examined.

DISTRIBUTION  
Australia.

***Microporus thoreyi* (SIGNORET)**

*Cydnus Thoreyi* SIGNORET, 1882b: 152; LETHIERRY & SEVERIN, 1893: 68.  
*Microporus thoreyi*: LIS, 1995b: 145.

TYPE MATERIAL  
Syntype(s): Rockhampton, Thorey (SMNH); not examined.

DISTRIBUTION  
Australia (Queensland).

**Genus *Peltoscytus* LIS**

*Peltoscytus* LIS, 1993a: 18 (type-species: *Peltoscytus solomonensis* LIS, 1993, by original designation).

DIAGNOSTIC COMBINATION

Body broadly ovate (fig. 24), medium-sized, c. 6.5-8.5 mm in length.

Head broadly rounded; clypeus free, subapically without setigerous punctures; paraclypei with punctures bearing hair-like setae; eyes not large, each with a slender spine; ocelli very small, sometimes hardly visible, almost indistinct; antennae 5-segmented; rostrum 4-segmented.

Pronotum broader than long, somewhat flattened, particularly in lateral parts; each lateral margin with setigerous punctures; umbones not swollen.

Scutellum very long, apex narrowly tongue-shaped and rounded at the tip.

Corium with clavus and mesocorium joined together, not separated by a suture; suture between meso- and exocorium short, incomplete; membrane small, nevertheless not totally reduced.

Hind femora with numerous teeth on the lower margin.

Evaporative areas on meso- and metapleuron large, well defined, similar to those in the genus *Macroscytus*, apex of peritreme with broad tooth on the inner margin.

NOTE

All the species of the genus were keyed by LIS (1993e).

## SPECIES INCLUDED

*Peltoscytus klysi* LIS

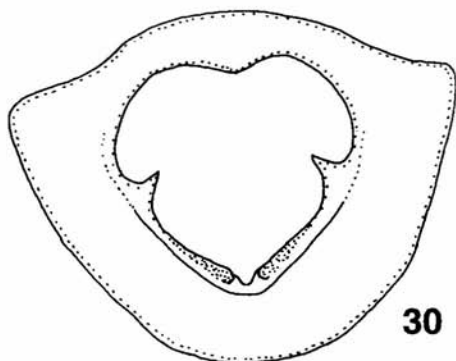
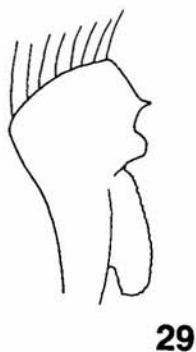
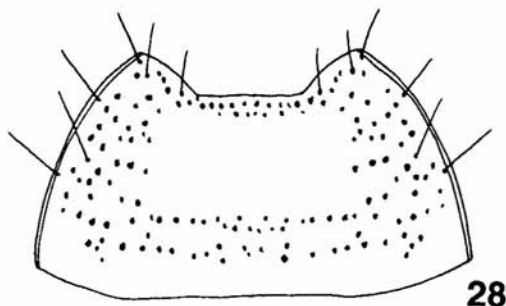
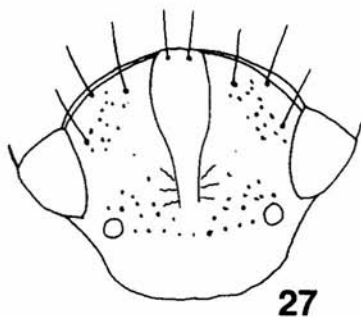
*Peltoscytus klysi* LIS, 1993e: 306, 1995b: 146.

## TYPE MATERIAL

Holotype female: Iles Fiji (Viti), Filhol 591-76, Muséum Paris; Holotype, *Peltoscytus klysi* LIS, det. J.A. LIS (MNHN); examined.

## DISTRIBUTION

Fiji.



27-30. *Alonips papuanus* n. sp.: 27 - head, 28 - pronotum, 29 - paramere, 30 - opening of genital capsule

***Peltoscytus samoanus* Lis**

*Peltoscytus samoanus* Lis, 1993e: 303, 1995b: 146.

## TYPE MATERIAL

Holotype female: West Samoa, Upolu Isl., Lakutoo Mt., primary tropical rain forest, pit-fall, samp. 2, 1.VIII.1980, GOLOVATSCHEV C.; *Choerocydnus* sp.n., KERZHNER det.; Holotype, *Peltoscytus samoanus* Lis, det. J.A. Lis (ZIP); examined.

## DISTRIBUTION

West Samoa.

***Peltoscytus solomonensis* Lis**

*Peltoscytus solomonensis* Lis, 1993a: 20, 1995b: 146.

## TYPE MATERIAL

Holotype male: Solomon Is., Guadalcanal, Mt. Austen, 5172, 20/5 1963, P. GREENSLADE, Pres. by P.J.M. GREENSLADE, B.M.1966-477; Holotype, *Peltoscytus solomonensis* Lis, det. J.A. Lis (BMNH); examined.

## DISTRIBUTION

Solomon Islands.

***Peltoscytus secundus* Lis**

*Peltoscytus secundus* Lis, 1993a: 22, 1995b: 146.

## TYPE MATERIAL

Holotype female: Solomon Is., Guadalcanal, Popomanasiu 4400', Camp site, lcg. P. NATURAJA, Roy. Soc. Exped., Brit. Mus. 1966-1; Holotype, *Peltoscytus secundus* Lis, det. J.A. Lis (BMNH); examined.

## DISTRIBUTION

Solomon Islands.

**Genus *Teabooma* Distant**

*Teabooma* Distant, 1914: 372 (type-species: *TEABOOMA PRINCEPS* Distant, 1914, by monotypy).

## DIAGNOSTIC COMBINATION

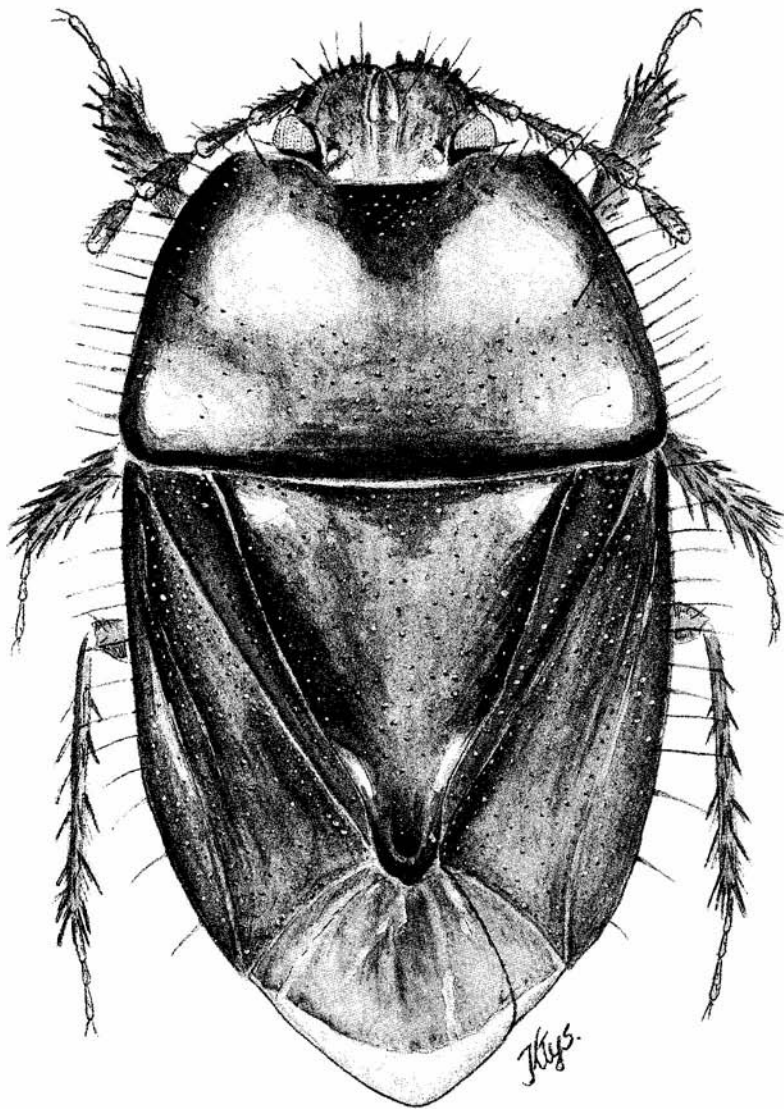
Body ovate, dorsally somewhat flattened, large, c. 16.0-17.0 mm in length; general habitus similar to that of the genus *Adrisa*.

Head broader than long, broadly rounded in outline; clypeus free, as long as paraclypei, subapically without setigerous punctures; each paraclypeus with two



primary hair-like setae only, submarginal setigerous punctures absent; eyes large, almost round, slightly elongated, with no apical spines; ocelli absent; antennae 4-segmented, 2nd segment very long; rostrum 4-segmented.

Pronotum subquadrate; lateral margins somewhat expanded and flattened, submargins with setigerous punctures; anterior margin angularly sinuate.



31. *Aethus philippinensis* DALLAS - general habitus

Scutellum longer than broad, its apex narrow and tongue-like, almost sharp at the tip; basal and lateral rows of punctures not distinct.

Corium with clavo-mesocorial suture almost indistinct; a suture between meso- and exocorium short, incomplete, visible only basally; exocorium somewhat broadened; costa without setigerous punctures; membrane normally developed, not reduced.

Propleural depression deep, coarsely punctured; evaporative areas on meso- and metapleuron large, well defined, that of mesopleuron with large deep punctures; apex of peritreme with broad, slightly curved, tooth-like process posteriorly.

Posterolateral margins of each abdominal sternite distinctly protruding.

Fore tibiae apically broadened, mid and hind tibiae slender, almost cylindrical.

#### SPECIES INCLUDED

#### *Teabooma princeps* DISTANT

*Teabooma princeps* DISTANT, 1914: 373; LIS, 1995b: 146.

#### TYPE MATERIAL

Lectotype male (present designation): Borearé, N. Caledonia, 7.2.12; *Teaboma princeps* DIST., Type (NMB); examined

#### DISTRIBUTION

New Caledonia.

#### NOMINA DUBIA

#### *Geobia fallax* MONTROUZIER

*Geobia fallax* MONTROUZIER, 1858: 247; STAL, 1876: 26; LETHIERRY & SEVERIN, 1893: 81; LIS, 1995b: 146.

The species was described from New Caledonia (Art and Balade Islands) as a member of the genus *Geobia* MONTR. (at present the genus is a synonym of *Adrisa* AM. & SERV.). Nevertheless, according to the original description, the species has 5-segmented antennae and therefore should not be placed in the genus *Adrisa* (which has 4-segmented antennae). Other characters, particularly corium distinctly larger than the membrane, may suggest that it belongs to either *Choerocydnus* WHITE or *Peltoscytus* LIS; nevertheless no species of either of the two genera is known from New Caledonia. Since the type material of *G. fallax* could not be located (it was probably lost) the name should be treated as nomen dubium, till more material from New Caledonia becomes available for the study.

*Adrisa binotata* (WALKER)

*Acatalectus binotatus* WALKER, 1867: 165; LIS, 1995b: 146.

*Adrisa? binotata*: DISTANT, 1899: 218.

*Adrisa binotata*: LETHIERRY & SEVERIN, 1893: 63.

The type-locality of the species, according to the original description, was unknown; the species was placed on the list of Australian fauna only tentatively (LIS, 1995b); it may also appear to be an Oriental species. Since its type-material was not located, the name is treated here as *nomen dubium*.

## SPECIES ERRONEOUSLY RECORDED FROM THE AUSTRALIAN REGION

*Pangaeus scotti* SIGNORET, 1882 (see WOODWARD, 1953) [New Zealand].

*Pangaeus douglasi* SIGNORET, 1882 (see FROESCHNER, 1960a) [Australia].

*Cephalocteus melolonthoides* SCHIØDTE, 1843 (see LIS, 1995b) [Timor].

## DISTRIBUTION OF THE STUDIED GENERA

Without a complete phylogenetic analysis of the family, including all the Old World genera, a comprehensive zoogeographic account is impossible. Therefore, only the distribution of the genera recorded from the area under study is discussed here.

The *Cydnidae* are represented in the Australian fauna only by two subfamilies (out of four distributed in the Old World regions), namely *Garsauriinae* (with the only genus *Garsauria*) and *Cydninae* (other genera); the remaining two subfamilies (*Sehirinae* and *Scaptocorinae*) have no representatives in the fauna of the Australian Region. Altogether, 19 genera with 78 species have been recorded from the Region; it is about half of the number known from the neighbouring Oriental Region (36 genera with 181 species - LIS, 1994b, 1995c). Thirteen genera are shared by the two mentioned regions (table 1), but only nine species are common to their faunas.

Ten genera are shared by the Australian and Palearctic Regions, and eleven by the Australian and Afrotropical Regions; the relatively high (over 50%) number of common genera is not accompanied by the same percentage of shared species. *Cydnus* (s. str.) *aterrimus* and *Fromundus pygmaeus* are the only two species common to the mentioned faunas; other genera include no shared species (see the table 1).

*Garsauria* is the only genus of the subfamily *Garsauriinae* recorded from the Australian Region; its species are distributed in the Old World tropics. *Garsauria aradoides* is known, besides Papua New Guinea and Solomon Islands, also from Indonesia and Malaysia.

*Centrostephus* comprises three species - two in the Australian (New Guinea, New Britain), and one (*C. parumpunctatus* SIGN.) in the Oriental Region.

*Chilocoris* is the most speciose genus of the tribe *Cydnini*, with 70 known species. It has clearly undergone most of its radiation in the Australasian area, where 49 of its species are found (ca. 70%). A majority of the species (69) are distributed in the Old World regions, only one (*C. repetitus* (UHLER)) is known to occur in the Western Hemisphere.

Members of the genus *Cydnus* occur in all the zoogeographical regions of the Old World; the records from the Western Hemisphere represent, according to

Table 1

Geographic distribution of the Australian genera of *Cydnidae* with number of species (number of species shared with the Australian Region is given in brackets).

	Australian	Oriental	Palaearctic	Afrotropical
<b><i>Garsauriinae</i></b>				
<i>Garsauria</i>	1	+(1)		+
<b><i>Cydninae</i></b>				
<i>Cydnini</i>				
<i>Blaena</i>	7			
<i>Centrostephus</i>	2	+		
<i>Chilocoris</i>	15	+(1)	+	+
<i>Cydnus</i>	2	+(2)	+(1)	+(1)
<b><i>Geotomini</i></b>				
<i>Adrisa</i>	13	+	+	
<i>Aethus</i>	2	+(1)	+	+
<i>Alonips</i>	2	+		+
<i>Byrsinus</i>	1	+	+	+
<i>Choerocydnus</i>	2			
<i>Cydnchoerus</i>	1			
<i>Eulonips</i>	2			
<i>Fromundus</i>	1	+(1)	+(1)	+(1)
<i>Geotomus</i>	5	+	+	+
<i>Lactistes</i>	1	+	+	+
<i>Macroscythus</i>	13	+(3)	+	+
<i>Microporus</i>	3	+	+	+
<i>Peltoscythus</i>	4			
<i>Teaboma</i>	1			
Total	19(78)	13(9)	10(2)	11(2)

FROESCHNER (1960a), introduction rather than a part of the natural distribution range.

*Adrisa*, a typical Australasian genus, has thirteen Australian and eight Oriental species, none of them shared by the two regions. Two of the Oriental species are known also to penetrate the southern parts of the Palearctic Region.

Members of the genus *Aethus* occur in all the zoogeographical regions of the Old World; the precise number of its species (particularly Palearctic and Afrotropical) has not been established, since numerous species previously assigned to the genus should actually be excluded from it (see LIS, 1993f, 1994b, 1994c). The genus is in a need of revision (LIS, in prep.). *Aethus* has two species in the Australian Region, one of them (*A. philippinensis*) shared with the Oriental fauna.

Table 2.

Number of species in particular genera of *Cydnidae* in the regions indicated (species occurring in more than one region are scored in parentheses in regions other than those of their putative origin).

Genera	A	B	C	D	E	F	G	H	I	J	K	L
<i>Garsauria</i>		1		(1)								
<i>Blaena</i>	7											
<i>Centrostephus</i>		1										
<i>Chilocoris</i>	2+(1)	9+(1)	(2)	1	1			1	1			
<i>Cydnus</i>	1	1										
<i>Adrisa</i>	11	1			(1)	1+(2)	(1)				(1)	(1)
<i>Aethus</i>	2	(1)		(1)	(1)							
<i>Alonips</i>	1	1										
<i>Byrsinus</i>					1							
<i>Choerocydnus</i>	2											
<i>Cydnchoerus</i>	1							(1)				
<i>Eulonips</i>	1				1							
<i>Fromundus</i>	1	(1)	(1)	(1)		(1)	(1)			(1)		
<i>Geotomus</i>	5											
<i>Lactistes</i>	1											
<i>Macroscytus</i>	3		71+(2)	1	(2)	(1)		(1)	(1)			(1)
<i>Microporus</i>	3											
<i>Peltoscytus</i>				2			1			1		
<i>Teaboma</i>						1						
Total	41+(1)	21+(3)	2+(6)	4+(3)	3+(3)	2+(4)	1+(2)	1+(2)	1+(1)	1+(1)	(1)	(2)

Explanations: A - Australia, B - New Guinea, C - Bismarck Arch., D- Solomon Is., E - Tasmania, F - New Caledonia, G - Fiji, H - New Zealand, I - North Moluccas, J - Samoa, K - Guam, L - Timor

*Alonips* has two Australian, six Oriental and four African species (see LIS, 1994b), none of them shared by any two of the three regions. Since *Alonips* regained its generic status only recently (LIS, 1994b), it is still unclear whether also some Palearctic species of the genus *Geotomus* should be transferred to *Alonips*, as was the case with some Oriental and Australian species.

The genus *Byrsinus* has been redefined recently (LIS, 1993f); the precise number of its species has not been established, since a detailed revision is necessary. *Byrsinus* displays its greatest diversity in the Palearctic Region, and has only one species in the Oriental and another one in the Australian fauna. *Fromundus* is distributed in all the zoogeographical regions of the Old World; one species (*F. pygmaeus*) is common to all the regions. It is also the only Australian species of the genus.

*Geotomus* has five species in the Australian Region and three in the Oriental, none of them shared by the two regions. The precise number of Palearctic and Afrotropical species can be established only after a revision of the genus, since numerous species previously placed in *Geotomus* should be actually transferred either to *Alonips* or to *Fromundus*.

Species of *Lactistes* are distributed in the Old World tropics; the genus has six Oriental, one Palearctic, eight Afrotropical and one (endemic) Australian species.

*Macroscytus* is the most speciose genus of the tribe *Geotomini*, with its almost 50 species distributed mainly in the Australasian area, where 21 species are known. At present 13 species have been recorded from the Australian Region, among them three shared with the Oriental fauna. The genus is in a need of revision on the world basis, since numerous new species seem to be described from various parts of the world (LIS, in prep.); it may appear to be the most speciose genus in the entire family.

*Microporus* has its representatives in both New and Old World fauna. It has three American, four Australian and two Oriental species; the exact number of its species in other regions has not been established.

*Blaena*, *Choerocydnus*, *Cydnchoerus*, *Eulonips*, *Peltoscytus* and *Teaboma* are restricted in their distribution to the Australian Region, and may be regarded as endemic genera. The resulting degree of endemism of the Australian fauna in comparison with that of the Oriental is almost the same at the generic level (c. 32% and 30%, respectively).

Most of the species under study are distributed in the Australian continent (about 55%) and New Guinea (about 32%). Of the remaining Pacific islands only Bismarck Archipelago, Solomon Islands, Tasmania and New Caledonia are known to have at least six species each. The other islands have been colonised by not more than three, usually common species (table 2).

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