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A revision of the burrower-bug genus *Macroscytus* FIEBER, 1860 (*Hemiptera*: *Heteroptera*: *Cydnidae*)

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ABSTRACT. The genus *Macroscytus* FIEBER, 1860 is revised taxonomically and cladistically. Descriptions including diagnostic characters are presented for each already known species, and four new species are described (*M. comorensis* sp. n. and *M. insularis* sp. n. from Comoros, *M. heissi* sp. n. from Kenya, *M. loksai* sp. n. from Papua New Guinea). The following new synonymies are proposed: *Macroscytus acutus* SIGNORET, 1883, *Macroscytus excavatus* SIGNORET, 1883 and *Macroscytus inermipes* HORVÁTH, 1904 = *Macroscytus reflexus* SIGNORET, 1883; *Macroscytus punctiventris* SIGNORET, 1883 and *Macroscytus rubiginosus* STICHEL, 1922 = *Macroscytus ruficornis* SIGNORET, 1883; *Macroscytus cheesmanae* J.A. LIS, 1993 = *Macroscytus annulipes* HORVÁTH, 1919; *Macroscytus sumatranus* J.A. LIS, 1993 = *Macroscytus gibbulus* (ELLENRIEDER, 1862); *Macroscytus confusus* J.A. LIS, 1995 = *Macroscytus fraterculus* Horváth, 1919, sp. dist. Lectotype is designated for *Macroscytus astrolabicus* HORVÁTH, and neotypes for *Hahnia gibbula* ELLENRIEDER, *Macroscytus reflexus* SIGNORET, *M. ruficornis* SIGNORET, and *M. celebensis* BREDDIN. The following new records are given: *M. astrolabicus* (Bismarck Archipelago), *M. australis* (New Britain), *M. badius* (Nepal), *M. bipunctatus* (Malaya), *M. brunneus* (Jordan, Namibia, Oman, Zambia, Zimbabwe), *M. fryeri* (Comoros), *M. honiarensis* (New Britain), *M. javanus* (Lombok, Sumbawa, Sulawesi, Thailand), *M. reflexus* (Burkina Faso, Gabon, Guinea, Liberia, Mozambique, Namibia, Ruanda, Senegal, Togo), *M. ruficornis* (Benin, Central African Republic, Congo), *M. vietnamicus* (India). A key to all (55) species of the genus is presented. The results of a cladistic analysis based on 118 characters suggest a mosaic evolution within the genus, and do not support its division into three formerly proposed species-groups. A list of 17 species erroneously placed in the genus *Macroscytus* (originally or subsequently), including their present correct status, is provided.

Key words: Entomology, *Hemiptera*, *Heteroptera*, *Cydnidae*, *Macroscytus*, taxonomy, cladistic analysis, revision, new species, key to species.

CONTENTS

INTRODUCTION

The genus *Macroscytus* was erected by FIEBER (1860) for the Palaearctic species *Cydnus brunneus* described by FABRICIUS (1803) from Morocco.

A world revision of *Cydnidae* (SIGNORET 1883a) included only 18 species of that genus, among these 10 new to the science. Studies on the genus have been almost totally neglected since, except for usually vague descriptions of about a dozen new species from various regions of the Old World (HORVÁTH 1904, 1919; BREDDIN 1906; DISTANT 1913; STICHEL 1922; FROESCHNER 1967). Only in the last decade its East Palaearctic, Oriental, Australian, Madagascan and Central African representatives were taxonomically revised (LINNAVUORI 1993; LIS 1994a, 1995a, 1999a, 1999d); nevertheless, the genus has never been revised on the world basis.

The aim of the present study was to revise the genus taxonomically and cladistically, to verify whether its three formerly proposed (LIS 1999a) species-groups (*australis*-group, *aequalis*-group, *javanus*-group) are monophyletic and deserve subgeneric rank, and finally to provide a key for the species determination.

MATERIAL AND METHODS

Material from the following institutional and private collections was borrowed or examined in situ during the present study (collections listed alphabetically according to their acronyms used in the text):

AMNH – American Museum of Natural History, New York, USA;
BMH – Bernice P. Bishop Museum, Honolulu, Hawaii, USA;
BMNH – the Natural History Museum, London, Great Britain;
CMNH – Carnegie Museum of Natural History, Pittsburgh, USA;
DPI – Department of Primary Industries, Mareeba, Australia;

HNHM – Hungarian Natural History Museum, Budapest, Hungary;
IRSNB – Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium;
JEC – J.E. Eger collection, Tampa, Florida, USA;
MCSN – Museo Civico di Storia Naturale „Giacomo Doria", Genova, Italy;
MNHN – Muséum National d'Histoire Naturelle, Paris, France;
MNHU – Museum für Naturkunde, Humboldt-Universität, Berlin, Germany;
MZLU – Museum of Zoology, Lund University, Lund, Sweden;
NHMW – Naturhistorisches Museum Wien, Vienna, Austria;
NHMUK – Natural History Museum, Karachi University, Pakistan;
NMP – Natal Museum, Pietermaritzburg, South Africa;
NTM – Museums and Galleries of the Northern Territory, Darwin, Australia;
NMV – National Museum of Victoria, Melbourne, Australia;
NNML – Nationaal Natuurhistorisch Museum, Leiden, the Netherlands;
NSMT – National Science Museum, Tokyo, Japan;
OXUM – Oxford University Museum, Hope Entomological Collections, Great Britain;
QMB – Queensland Museum, Brisbane, Queensland, Australia;
SAM – South Australian Museum, Adelaide, Australia;
SMNS – Staatliches Museum für Naturkunde, Stuttgart, Germany;
TLM –Tiroler Landesmuseum, Ernst Heiss collection, Innsbruck, Austria;
UO – University of Opole, Department of Zoology, the author's collection, Opole, Poland;
UQIC – University of Queensland Insects Collection, Brisbane, Australia;
USMB – Upper Silesian Museum, Bytom, Poland;
WAM – Western Australian Museum, Perth, Australia;
ZIP – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia;
ZIZM – Zoologisches Institut und Museum, Universität Hamburg, Germany;
ZMA – Zoölogisch Museum, University of Amsterdam, the Netherlands;
ZMPA – Museum and Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland;
ZMUC – Zoologisk Museum, University of Copenhagen, Denmark;
ZSMC – Zoologische Staatssammlung München, Germany.

All the presented descriptions of species known to date contain only their most important diagnostic characters, and their subsequent usually very detailed redescriptions were not repeated here; nevertheless, each new species is described in detail.

A cladistic analysis was undertaken using the computer software Hennig86 ver. 1.5 (FARRIS 1988). The final cladograms were produced using Clados (NIXON 1992); since it was impossible to map all the 118 characters on tree branches, only bare final cladograms are presented.

DEFINITION OF THE GENUS

Genus *Macroscytus* Fieber, 1860

Macroscytus Fieber, 1860: 83. Type species by subsequent monotypy (Fieber 1861: 362): *Cydnus brunneus* Fabricius, 1803.

Hahnia Ellenrieder, 1862: 139, name preoccupied by *Hahnia* Koch, 1841 (in *Aranea*) (syn. by Lis 1994a: 209). Type species by monotypy: *Hahnia gibbula* Ellenrieder, 1862.

Philapodemus Kirkaldy, 1910: 8, new name for *Hahnia* Ellenrieder,1862 (syn. by Lis 1994a: 209). Type species by automatic fixation: *Hahnia gibbula* Ellenrieder, 1862.

Diagnosis

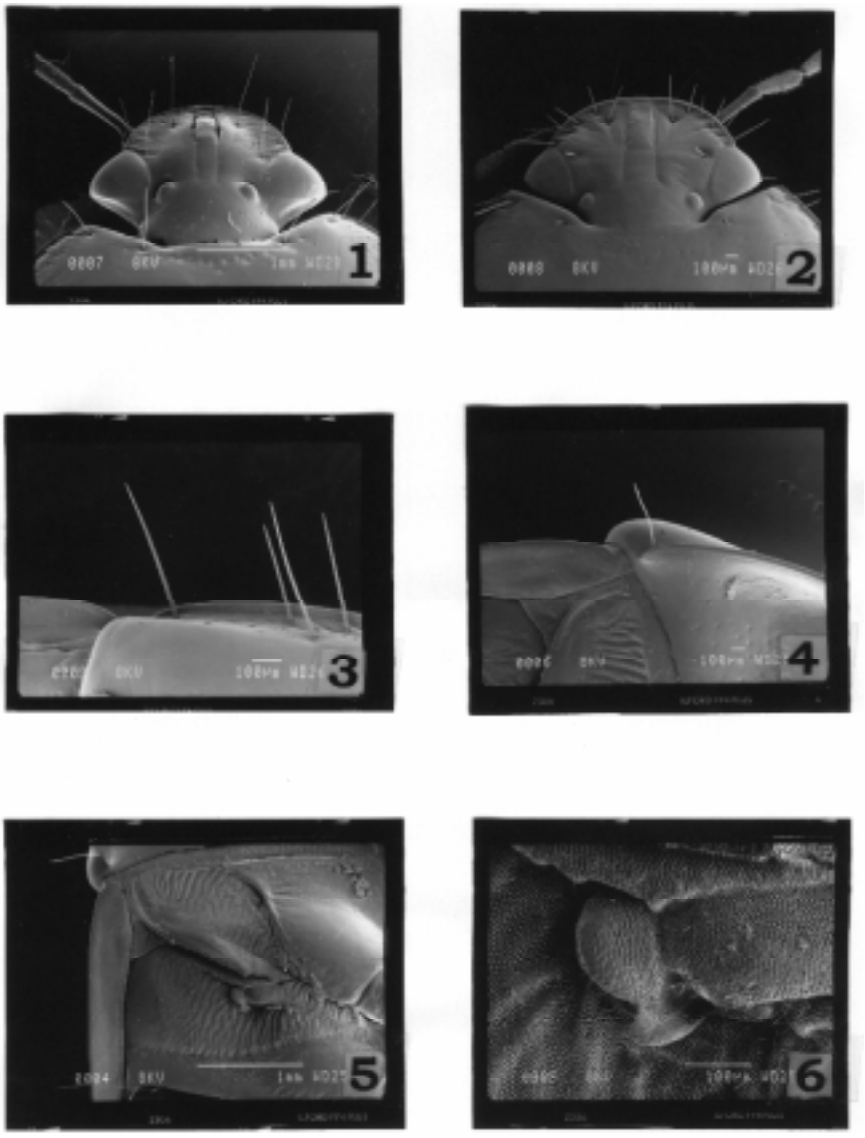
The genus is easily separable from all other genera of *Cydnidae* in having strongly swollen pronotal umbones concealing posterolateral margins of pronotum (Figs 3-4), apex of peritreme with more or less blunt triangular lobe posteriorly (Fig. 6), and head submargins bearing only hair-like setae (Figs 1-2), entirely without pegs or peg-like setae.

Description

B o d y. More or less ovate, from 4.7 to 12.7 mm in length, and 2.7 to 6.7 mm in width; general appearance as in Figs 99, 143 and 279.

H e a d. Broadly rounded, margins carinate; dorsal surface more or less punctate; clypeus free, usually parallel-sided, sometimes slightly tapering apicad, with or without a pair of subapical hair-like setae; each paraclypeus with two (*M. lobatus*) or three (all other species) primary hair-like setae (Fig. 1), submarginally without or with 1-10 secondary hair-like setae (Fig. 2); eyes large, more or less protruding, almost triangular (Fig. 1), or narrowed (Fig. 2), each bearing a single very short apical seta, about third or fourth eye length (Figs 1-2); ocelli clearly visible; bucculae large, entirely coarsely punctate or impunctate in anterior part; rostrum 4-segmented; antennae 5-segmented.

P r o t h o r a x. Pronotum broader than long, more or less narrowed apically; anterior margin angularly insinuated, disc usually punctate anteriorly, laterally, and behind its middle, transverse discal impression behind calli from absent to distinctly developed; lateral margins with submarginal setigerous punctures (absent only in *M. lobatus*), pronotal disc with three primary setigerous punctures bearing long hair-like setae (absent only in *M. lobatus*); umbones strongly swollen and protruding caudolaterally, concealing posterolateral margins (Figs 3-4); pronotal disc usually more or less unicolorous, in some species sharply bicoloured with umbones and/or posterior margin yellow or yellowish brown. Prosternal median carina low, basally stout, coarsely punctate; subcarinal smooth areas large and clearly visible; median part of posterior margin of prosternum straight or almost straight, sometimes bearing small triangular process; propleural depression deep and coarsely punctate; anterior and posterior convexities of propleuron distinctly developed.



1-6. *Macroscytus* sp.: 1 - head of species with primary setigerous punctures only, dorsal view; 2 - head of species with primary and secondary setigerous punctures, dorsal view; 3 - postero-lateral angle of pronotum (umbone), dorsal view; 4 - postero-lateral angle of pronotum (umbone), ventral view; 5 - evaporatoria on meso- and metapleuron; 6 - apex of peritreme on metapleural evaporatorium.

M e s o t h o r a x. Scutellum triangular, longer than broad, sharpened apically; basal and lateral rows of punctures clearly developed, punctures in rows usually connected by incised lines; disc more or less punctate. Posterior wedge-shaped polished band on mesopleural evaporatorium well developed, impunctate or punctate; mesopleural evaporatorium large, occupying almost entire mesopleural surface, bearing more or less clearly visible longitudinal ridges (Fig. 5).

M e t a t h o r a x. Corium divided into clavus, meso- and exocorium; clavus usually with one complete and one or two incomplete rows of punctures; mesocorium entirely separated from exocorium, with two rows of punctures parallelling clavo-corial suture; costa from entirely separated to entirely fused with exocorium, either with or without setigerous punctures; membrane normally developed, large; membranal suture more or less bisinuate. Metapleural evaporative areas large, bearing more or less clearly visible longitudinal ridges (Fig. 5); apex of peritreme rounded, its anterior margin clearly differentiated from evaporatorium surface or prolonged to fuse with it, its posterior margin with more or less blunt triangular lobe (Fig. 6); scent gland opening large, clearly visible, placed posteriorly on peritreme; posterior area of metapleuron with broader or narrower band of coarse punctures.

7. Distribution range of the genus *Macroscytus* (dotted area)

L e g s. More or less unicolorous, in some species femora bicoloured, yellow or yellowish brown with median dark stripe; fore tibiae expanded apically, margins armed with spines; male hind femora usually with one subapical tooth on dorsal margin, and several more less distinct teeth or spines on ventral margin; female hind femora with or without small subapical tooth on dorsal margin, and several setae on ventral margin; hind tibiae slender, basally more or less reflected and usually with tubercles or carinae in males.

A b d o m e n. Sterna from almost impunctate to distinctly punctate and wrinkled, usually with at least patch of tiny punctures close to spiracles; terga impunctate or punctate, always pilose. Male and female genitalia of the common geotomine type.

DISTRIBUTION

The members of the genus are distributed only in the Old World warm climate; they reach 46°S and 46°N latitudes (Fig. 7).

KEY TO THE SPECIES

1. Each paraclypeus with 2 primary hair-like setae only, submarginal hair-like setae absent (Fig. 183); lateral margins of pronotum without submarginal setigerous punctures bearing long hair-like setae, primary setigerous punctures on pronotal disc absent (Fig. 182). Endemic to Réunion ..... *lobatus*
-. Each paraclypeus with 3 primary hair-like setae, among them one preocular submarginal hair-like seta (Fig. 1); lateral margins of pronotum with submarginal setigerous punctures bearing long hair-like setae, primary setigerous punctures on pronotal disc present ..... 2.
2. Clypeus subapically with a pair of setigerous punctures bearing long hair-like setae (Figs 53, 60, 273). Australian species ..... 3.
-. Clypeus subapically without a pair of setigerous punctures bearing long hair-like setae (Figs 1, 2) ..... 5.
3. Setigerous punctures on body margins more numerous (paraclypeus 8-9, pronotum 16-21, costa 8-11); paramere as in Fig. 276, 2nd conjunctival appendage as in Fig. 278 ..... *pseudaustralis*
-. Setigerous punctures on body margins less numerous (paraclypeus 4-7, pronotum 8-15, costa 3-8); paramere and 2nd conjunctival appendage not as above ..... 4.
4. Body narrower, length/width ratio 1.68-1.75; tibiae castaneous or dark castaneous, of the same colour as femora; male hind tibia with a row of small, almost equal-sized tubercles (Fig. 54); eyes small, ocular index 3.18-4.30; costa with 3-5 setigerous punctures; paramere as in Fig. 55, 2nd conjunctival appendage as in Fig. 57 ..... *australis*
-. Body broader, length/width ratio 1.56-1.62; tibiae whitish yellow or yellowish brown, distinctly lighter than femora; male hind tibia with a subbasal large

denticle followed by a row of smaller tubercles (Fig. 61); eyes large, ocular index 2.48-3.03; costa with 5-8 setigerous punctures; paramere as in Fig. 62, 2nd conjunctival appendage as in Fig. 64 ..... *australoides*

5. Each paraclypeus with a row of 2-12 submarginal setigerous punctures bearing long hair-like setae ..... 6.
-. Each paraclypeus with a single (preocular) submarginal setigerous puncture bearing long hair-like seta ..... 28.
6. Pronotum sharply bicoloured, disc from blackish brown to black with umbones and usually also posterior margin clearly yellowish brown; femora yellowish brown with broad dark median stripe ..... 7.
-. Pronotum more or less uniformly black or blackish brown, never with sharply yellowish brown umbones and posterior margin; femora uniformely dark ..... 9.
7. Costa without setigerous punctures bearing hair-like setae; ocular index about 2.51-2.55; paramere and penis as in Figs 180-181. Papua New Guinea .... *lansburyi*
-. Costa with a single setigerous puncture bearing hair-like seta; ocular index about 2.65-2.80; paramere and penis not as above ..... 8.
8. Paraclypeus with 2 submarginal setigerous punctures bearing long hair-like setae (Fig. 46); lateral margin of pronotum with 4-5 submarginal setigerous punctures bearing long hair-like setae; body length not exceeding 9.0 mm (7.57-8.12); paramere and penis as in Figs 49-51. Papua New Guinea, Bismarck Archipelago ..... *astrolabicus*
-. Paraclypeus with 3 submarginal setigerous punctures bearing long hair-like setae (Fig. 322); lateral margin of pronotum with 5-7 submarginal setigerous punctures bearing long hair-like setae; body length considerably exceeding 9.0 mm (about 10.3); paramere and penis as in Figs 325-327. Papua New Guinea ..... *unisetosus*
9. Costa without setigerous punctures bearing hair-like setae; eyes small, ocular index about 3.70-4.35; paramere and penis as in Figs 193-195. Papua New Guinea ..... *loksai*
-. Costa with 1-13 setigerous punctures bearing hair-like setae; eyes large, ocular index about 2.10-3.35; paramere and penis not as above ..... 10.
10. Setigerous punctures (bearing long hair-like setae) on body margins less numerous (costa 1-4, pronotum 5-10, paraclypeus 2-6) ..... 11.
-. Setigerous punctures (bearing long hair-like setae) on body margins more numerous (costa 4-13, pronotum 7-16, paraclypeus 4-10) ..... 23.
11. Costa separated from exocorium only in its basal third or half ..... 12.
-. Costa separated from exocorium along its entire length ..... 17.
12. Abdominal sterna distinctly punctate in lateral two thirds ..... 13.
-. Abdominal sterna punctate densely only in lateral one third, close to trichobothria and spiracles ..... 14.

13. Pronotal transverse impression behind calli deep and well developed, dividing pronotal disc into two lobes; anterior half of gular plate densely coarsely punctate. Comoros ..... *insularis*
-. Pronotal transverse impression behind calli absent or very shallow, not dividing pronotal disc into lobes; anterior half of gular plate impunctate. Comoros ..... *comorensis*
14. Costa separated from exocorium only in its basal third; tibiae yellow or yellowish brown, clearly lighter than tibial spines and femora; paramere and penis as in Figs 269-271. Madagascan species ..... *privignus*
-. Costa separated from exocorium in its basal half; tibiae from castaneous to dark castaneous, of the same colour as tibial spines and femora; paramere and penis different ..... 15.
15. Body smaller, 7.47-7.53 mm in length; terga distinctly punctate. Comoros, Seychelles ..... *fryeri*
-. Body larger, 7.80-11.90 mm in length; terga impunctate ..... 16.
16. Puncturation of scutellar disc sparse, punctures larger and coarser than those on corium; smaller species, body length 7.80-9.37 mm; paramere and penis as in Figs 214-216. Comoros ..... *mayottensis*
-. Puncturation of scutellar disc dense, punctures as large as those on corium; larger species, body length 9.25-11.90 mm; paramere and penis as in Figs 280 and 282. Afrotropical continental species ..... *reflexus*
17. Abdominal sterna distinctly punctate in lateral two thirds; pronotal transverse impression behind calli deep, dividing pronotal disc into two lobes; paramere and penis as in Figs 339-341. Oriental species ..... *vietnamicus*
-. Abdominal sterna punctate only close to trichobothria and spiracles; pronotal transverse impression behind calli absent or very shallow; paramere and penis different ..... 18.
18. Costa with a single setigerous puncture bearing hair-like seta ..... 19.
-. Costa with 2-4 setigerous punctures bearing hair-like setae ..... 20.
19. Smaller species, body length not exceeding 7.0 mm (6.63-6.88); eys and ocelli smaller, ocular index 2.40-2.65, ocellar index 6.5-7.7; paramere and penis as in Figs 207-209. Endemic to New Caledonia ..... *matilei*
-. Larger species, body length exceeding 7.0 mm (7.23-8.17); eyes and ocelli larger, ocular index 2.23-2.40, ocellar index 4.3-5.4; paramere and penis as in Figs 42-44. Australian species ..... *arnhemicus* [part]
20. Body broadly ovate, its dorsal surface almost impunctate; exocorium separated from mesocorium only in its basal two thirds; ocelli very small, ocellar index 8.8-11.4; paramere and penis as in Figs 161-163. Endemic to Lord Howe Island ..... *howei*
-. Body elongate, its dorsal surface distinctly punctate; exocorium entirely separated from mesocorium; ocelli large, ocellar index 4.0-7.0; paramere and penis not as above ..... 21.

21. Puncturation of scutellar disc very dense, punctures smaller than those on corium; smaller species, body 5.44-7.33 mm in length; paramere and penis as in Figs 346-348. Madagascar, Comoros ..... *viettei*
-. Puncturation of scutellar disc sparse or moderately dense, punctures larger and coarser than those on corium; larger species, body 7.23-9.15 mm in length; paramere and penis not as above ..... 22.
22. 3rd antennal segment almost as long as the 2nd; subapical teeth of male femora very small, almost indistinct (Fig. 40); subapical teeth of female femora absent; costa with 2 setigerous punctures bearing hair-like setae; paramere and penis as in Figs 42-44. Australian species ..... *arnhemicus* [part]
-. 3rd antennal segment 1.2-1.5 times longer than the 2nd; subapical teeth on male femora clearly visible (Fig. 173); subapical teeth of female femora small; costa with 2-4 setigerous punctures bearing hair-like setae; paramere and penis as in Figs 175-177. Oriental species ..... *javanus*
23. Abdominal sterna distinctly punctate in lateral two thirds ..... 24.
-. Abdominal sterna punctate only close to trichobothria and spiracles ..... 26.
24. Head dorsally clearly punctate; male mid femora with a row of stout setae only, sharp teeth absent; submarginal setigerous punctures with long hair-like setae only along basal two thirds of each paraclypeal margin; body larger, 8.40-10.70 mm in length; paramere and penis as in Figs 232-233. Oriental species ..... *nigroaeneus*
-. Head dorsally impunctate, or with tiny almost invisible punctures; male mid femora with a row of large sharp teeth; submarginal setigerous punctures with long hair-like setae along entire lateral margins of paraclypei; body smaller, 6.10-8.75 mm in length; paramere and penis not as above ..... 25.
25. 2nd antennal segment about 1.3 times longer than the 3rd; costa with 6 setigerous punctures; hypophysis of paramere shorter (Fig. 146), apical lobe of the 2nd conjunctival appendage of penis shorter and almost straight (Fig. 149). Afrotropical species ..... *heissi*
-. 2nd antennal segment about 0.9-1.1 times longer than the 3rd; costa with 7-13 setigerous punctures; hypophysis of paramere longer (Fig. 255), apical lobe of the 2nd conjunctival appendage of penis longer and more curved (Fig. 257). Australian species ..... *piceus*
26. Smaller species, 4.75-5.70 mm in length; male hind femora without subapical tooth (Fig. 219); 2nd antennal segment 0.84-0.95 times as long as the 3rd; costa with 7-9 setigerous punctures bearing long hair-like setae; paramere and penis as in Figs 221-223. Australian species ..... *minimus*
-. Larger species, 5.70-9.13 mm in length; male hind femora with large subapical tooth (Figs 68 and 96); 2nd antennal segment 1.1-1.3 times longer than the 3rd; costa with 8-13 setigerous punctures bearing long hair-like setae; paramere and penis not as above ..... 27.
27. Body smaller, 5.70-7.83 mm in length; anterior half of gular plate impunctate; 2nd conjunctival appendage of penis as in Fig. 71. Oriental species .... *badius*

-. Body larger, 5.90-9.13 mm in length; anterior half of gular plate sparsely punctate; 2nd conjunctival appendage of male penis as in Fig. 97. Palaearctic-Afrotropical species ..... *brunneus*

28. Pronotum sharply bicoloured, at least umbones clearly yellow or yellowish brown, usually also posterior margin more or less broadly yellow or yellowish brown ..... 29.

-. Pronotum more or less unicolorous, umbones and posterior margin never bright yellow or yellowish brown, only sometimes slightly paler than remaining part of a disc ..... 36.

29. Pronotal umbones clearly yellow or yellowish brown, posterior margin of pronotum of the same colour as remaining part of disc; head with clearly visible, dense and coarse puncturation on paraclypei ..... 30.

-. Pronotum with umbones and posterior margin clearly yellow or yellowish brown; head impunctate or almost impunctate, sometimes with very small and almost invisible punctures on paraclypei ..... 31.

30. Anterior half of gular plate densely punctate; paramere and penis as in Figs 76 and 78-79. Oriental species ..... *bipunctatus*

-. Anterior half of gular plate sparsely punctate; paramere and penis as in Figs 299-301. Madagascan species ..... *simulans*

31. Costa with 2-3 setigerous punctures bearing hair-like setae ..... 32.

-. Costa without or with a single setigerous puncture bearing hair-like seta ..... 33.

32. Subbasal tooth on male hind femora very large and clearly visible (Fig. 82); subapical denticle on dorsal margin of female femur clearly visible, blunt; male tibiae strongly bent outwards in their basal third (Fig. 82); distance between ocelli 6.7-9.0 times distance of ocellus from eye; anterior half of gular plate sparsely punctate; paramere and penis as in Figs 83 and 85-86. Australian species ..... *bisetosus*

-. Subbasal tooth on male hind femora small (Fig. 316); subapical denticle on dorsal margin of female femur small, sharp; male tibiae almost straight in the basal third (Fig. 316); distance between ocelli 4.2-6.2 times distance of ocellus from eye; anterior half of gular plate densely punctate; paramere and penis as in Figs 318-320. Indonesia, Papua New Guinea, Philippines .... *transversus*

33. Costa separated from exocorium only basally; femur entirely black or blackish brown; ocular index 3.15-3.52; transverse yellow or yellowish brown band on posterior margin of pronotum broad (Fig. 99); lateral parts of pronotal disc somewhat flattened. Endemic to Sulawesi ..... *celebensis*

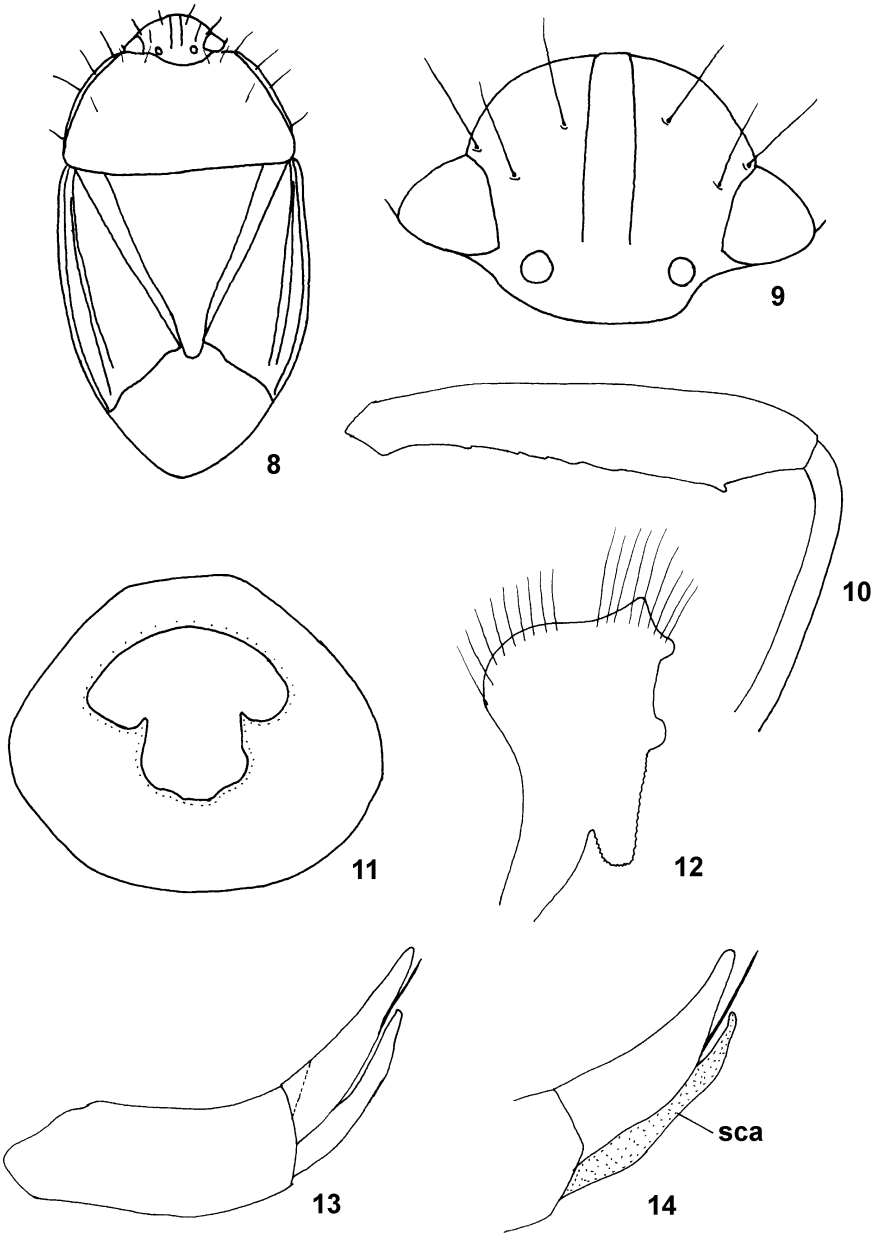
-. Costa entirely separated from exocorium; femur yellow or yellowish brown, sometimes with broad darker median stripe; ocular index 2.08-2.60; transverse yellow or yellowish brown band on posterior margin of pronotum narrow; lateral parts of pronotal disc normally developed ..... 34.

34. Femora entirely yellow or yellowish brown, sometimes only basal parts somewhat darkened; paramere and penis as in Figs 32-34. Australian species ..... *annulipoides*

-. Femora with broad dark median stripe, basal and apical parts yellow or yellowish brown; paramere and penis different. Papuan species ..... 35.
35. Eyes larger, ocular index 2.08-2.36; male hind tibia without denticles on inner margin (Fig. 24); paramere as in Fig. 26, 2nd conjunctival appendage as in Fig. 27 ..... *annulipes*
-. Eyes smaller, ocular index 2.30-2.60; male hind tibia with small denticles on inner margin (Fig. 152); paramere as in Fig. 154, 2nd conjunctival appendage as in Fig. 156 ..... *honiarensis*
36. Abdominal sterna clearly punctate in lateral two thirds, or punctate and densely wrinkled ..... 37.
-. Abdominal sterna punctate only close to spiracles and trichobothria, sometimes also slightly wrinkled ..... 41.
37. Costa separated from exocorium only basally, its margin without setigerous punctures; paramere and penis as in Figs 200-202. Madagascan species .... *madagascariensis*
-. Costa separated from exocorium entirely or in basal two thirds, its margin with 2 setigerous punctures bearing hair-like setae; paramere and penis different. Not a Madagascan species ..... 38.
38. Costa separated from exocorium in basal two thirds; paraclypei densely punctate; paramere and penis as in Figs 292-294, theca with ventral median carina. Afrotropical continental species ..... *ruficornis*
-. Costa entirely or almost entirely separated from exocorium; paraclypei impunctate or weakly punctate; paramere and penis different, theca without ventral median carina. Oriental species ..... 39.
39. Lateral two thirds of abdominal sterna densely wrinkled and finely punctate; lateral margin of pronotum with 4 submarginal setigerous punctures bearing long hair-like setae; paramere and penis as in Figs 311-313 ..... *tenasserimus*
-. Lateral two thirds of abdominal sterna clearly punctate and only sometimes wrinkled; lateral margin of pronotum with 5-6 submarginal setigerous punctures bearing long hair-like setae; paramere and penis different ..... 40.
40. Anterior half of gular plate densely punctate; 2nd antennal segment 0.77-1.00 times as long as the 3rd; eyes and ocelli smaller, ocular index 2.20-3.10, ocellar index 4.5-6.1, distance between ocelli 4.8-7.0 times distance of ocellus from eye; paramere and penis as in Figs 19-21 ..... *aequalis*
-. Anterior half of gular plate sparsely punctate; 2nd antennal segment 0.65-0.77 times as long as the 3rd; eyes and ocelli larger, ocular index 1.82-2.40, ocellar index 3.5-5.0, distance between ocelli 7.4-11.0 times distance of ocellus from eye; paramere and penis as in Figs 118-120 ..... *dominiqueae*
41. Costa without setigerous punctures bearing hair-like setae. New Guinean species ..... 42.
-. Costa with 1-4 setigerous punctures bearing hair-like setae. Not a New Guinean species ..... 43.

42. Eyes smaller, ocular index 2.75-3.80; pronotum subquadrate in outline (Fig. 237); punctures on exocorium small (Fig. 239); apical part of penis as in Fig. 243 ..... *papuanus*
-. Eyes larger, ocular index 2.19-2.50; pronotum trapezoid in outline (Fig. 8); punctures on exocorium large; apical part of penis as in Fig. 14 ..... *abditus*
43. Pronotal transverse impression behind calli absent, or very shallow and usually marked only laterally ..... 44.
-. Pronotal transverse impression behind calli deep and entirely developed, dividing pronotal disc into two distinct lobes ..... 51.
44. Costa with a single setigerous puncture bearing hair-like seta ..... 45.
-. Costa with 2-4 setigerous punctures bearing hair-like setae ..... 47.
45. Smaller species, 6.63-7.57 mm in length; 2nd antennal segment 0.72-0.85 times as long as the 3rd; paramere and 2nd conjunctival appendage as in Figs 228-230. Australian species ..... *monteithi*
-. Larger species, 7.78-8.88 mm in length; 2nd antennal segment 0.95-0.98 times as long as the 3rd; paramere and 2nd conjunctival appendage different ..... 46.
46. Scutellum densely punctate; body length 8.30-8.88 mm; eyes larger, ocular index 2.00-2.15; paramere and 2nd conjunctival appendage as in Figs 140-142. Australian species ..... *glaberrimus*
-. Scutellum weakly punctate; body length 7.78-8.01 mm; eyes smaller, ocular index 2.20-2.21; paramere and 2nd conjunctival appendage as in Figs 36-37. New Ireland ..... *aquilus*
47. Male hind femora with large subbasal tooth (Fig. 286); lateral margin of pronotum with 3-6 submarginal setigerous punctures bearing long hair-like setae; paramere and 2nd conjunctival appendage as in Figs 284-285. Oriental species ..... *subaeneus*
-. Male hind femora without subbasal tooth; lateral margin of pronotum with 5-8 submarginal setigerous punctures bearing long hair-like setae; paramere and 2nd conjunctival appendage not as above ..... 48.
48. Larger species, 7.10-10.50 mm in length; costa always with 2 setigerous punctures bearing hair-like setae; 2nd conjunctival appendage as in Figs 124. East Palaearctic species ..... 49.
-. Smaller species, 6.81-9.12 mm in length; costa with 3-4 (sometimes 2) setigerous punctures bearing hair-like setae; 2nd conjunctival appendage not as above. Oriental species ..... 50.
49. Opening of male genital capsule as in Fig. 122; female body smaller and ovate in outline, 7.10-9.22 mm in length, 4.15-5.20 mm in width; eyes smaller, ocular index 2.70-3.20 ..... *fraterculus*
-. Opening of male genital capsule as in Fig. 127; female body larger and elongate in outline, 8.10-10.50 mm in length, 4.65-6.00 mm in width; eyes larger, ocular index 1.98-3.00 ..... *japonensis*
50. 2nd antennal segment 0.75-0.82 times as long as the 3rd; distance between ocelli 8.0-12.0 times distance of ocellus from eye; paramere and 2nd conjunctival appendage as in Figs 262-264. Oriental continental species ..... *popovi*

-. 2nd antennal segment 0.81-0.87 times as long as the 3rd; distance between ocelli 5.5-8.3 times distance of ocellus from eye; paramere and 2nd conjunctival appendage as in Figs 332-334. Indonesian species ..... *utaranus*
51. Body larger, exceeding 12.5 mm in length; paramere as in Fig. 306. Madagascan species ..... *tamatavei*
-. Body smaller, not exceeding 12.5 mm in length (7.65-12.17); paramere and penis different. Oriental species ..... 52.
52. Pronotal transverse impression behind calli prolonged laterally backwards to posterolateral angles; body smaller, 7.65-8.40 mm in length; paramere and penis as in Figs 235-236 ..... *noonadanae*
-. Pronotal transverse impression behind calli laterally not continued backwards to posterolateral angles; body larger, 8.00-12.17 mm in length; paramere and penis different ..... 53.
53. Costa with a single setigerous puncture bearing hair-like seta ..... 54.
-. Costa with 2 setigerous punctures bearing hair-like setae ..... 55.
54. Male hind femur with larger subapical tooth (Fig. 246), female hind femur with small but clearly visible subapical tooth; 2nd antennal segment 0.62-0.66 times as long as the 3rd; paramere and penis as in Figs 248-250 ..... *pfeifferi* [part]
-. Male hind femur with smaller subapical tooth (Fig. 89), female hind femur without or with almost indistinct subapical tooth; 2nd antennal segment 0.64-0.70 times as long as the 3rd; paramere and penis as in Figs 90 and 92-93 .... *borneensis* [part]
55. Ocelli smaller, ocellar index 3.8-4.9; 2nd antennal segment 0.70-0.82 times as long as the 3rd ..... 56.
-. Ocelli larger, ocellar index 2.9-4.3; 2nd antennal segment 0.62-0.70 times as long as the 3rd ..... 57.
56. 2nd antennal segment 0.80-0.82 times as long as the 3rd; body larger, 9.36-11.57 mm in length; paramere and penis as in Figs 110 and 112-113 ..... *dalawanus*
-. 2nd antennal segment 0.70-0.75 times as long as the 3rd; body smaller, 8.00-10.78 mm in length; paramere and penis as in Figs 134-135 ..... *gibbulus*
57. Male hind femur with larger subapical tooth (Fig. 246), female hind femur with small but clearly visible subapical tooth; 2nd antennal segment 0.62-0.66 times as long as the 3rd; paramere and penis as in Figs 248-250 ..... *pfeifferi* [part]
-. Male hind femur with smaller subapical tooth (Fig. 89), female hind femur without or with almost indistinct subapical tooth; 2nd antennal segment 0.64-0.70 times as long as the 3rd; paramere and penis as in Figs 90 and 92-93 .... *borneensis* [part]



8-14. *Macroscytus abditus* J.A. Lis: 8 - body outline; 9 - head; 10 - male posterior femur and base of tibia; 11 - male genital capsule, dorsal view; 12 - paramere; 13 - penis; 14 - apical part of penis (sca – second conjunctival appendage)

REVIEW OF THE SPECIES

Macroscytus abditus J.A. LIS
(Figs 8-14)

Macroscytus abditus J.A. LIS, 1993b: 41.

DESCRIPTION

Body 8.05-8.65 mm in length, 4.39-4.55 mm in width, from castaneous to almost black, sometimes corium and apices of pronotal umbones slightly brown or yellowish brown.

Head dorsally with tiny and hardly visible punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus with a single submarginal preocular puncture bearing hair-like seta (Fig. 9); ocular index 2.19-2.50; interocellar index 3.7-4.6; length of antennal segments (in mm): 0.35-0.38 : 0.43-0.46 : 0.55-0.59 : 0.73-0.84 : 0.87-0.94.

Pronotal disc weakly punctate, transverse discal impression behind calli absent; each lateral margin with 4-5 submarginal setigerous punctures (Fig. 8). Propleural depression with numerous coarse punctures.

Puncturation of a scutellar disc very weak, better visible only in its median part.

Mesocorium punctate with large punctures basally and the smaller apically; exocorium densely punctate; costa narrow, almost entirely separated from exocorium, bearing no setigerous punctures (Fig. 8).

Hind femora with 1-2 small teeth subapically, hind tibiae with neither denticles nor emargination on inner margins (Fig. 10).

Abdominal sterna smooth and polished; sutures laterally with small punctures, each segment with a patch of punctures posterior to spiracle, and a few punctures lateral and anterior to it; pregenital segment almost impunctate.

Male genitalia as in Figs 11-14.

TYPE DATA

Holotype male: Papua New Guinea, East. High. Prov., Alyura (BMNH).

MATERIAL EXAMINED

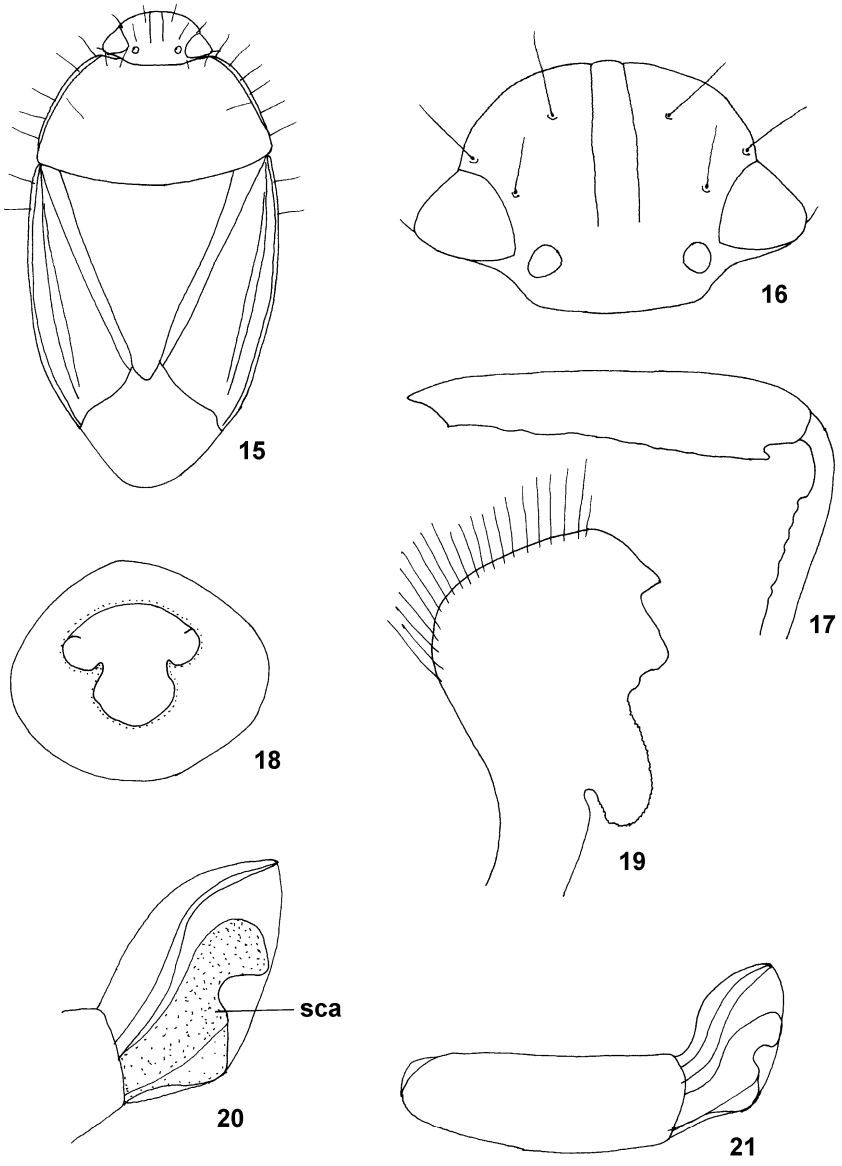
Holotype, 3 paratypes, and 3 other specimens: **Papua New Guinea**: East. High. Prov., Alyura, 3 paratypes (BMNH, UO); Star Range, Sibil, 3 exx. (NNML, UO).

DISTRIBUTION

Papua New Guinea.

Macroscytus aequalis (WALKER)
(Figs 15-21)

Aethus aequalis WALKER, 1867: 159.



15-21. *Macroscytus aequalis* (WALK.): 15 - body outline; 16 - head; 17 - male posterior femur and base of tibia; 18 - male genital capsule, dorsal view; 19 - paramere; 20 - apical part of penis (sca – second conjunctival appendage); 21 - penis

Macroscytus foveolus, not of DALLAS: ATKINSON 1887: 53 [part]; DISTANT 1902: 97 [part]; BREDDIN 1909: 263; JOSIFOV & KERZHNER 1978: 188 &189.
Macroscytus foveola, not of DALLAS: BERGROTH 1915: 170; HORVÁTH 1919: 240.
Macroscytus favoela [sic!], not of DALLAS: HASEGAWA 1962: 7.
Macroscytus aequalis: LIS 1994a: 212 [as distinct species].

DESCRIPTION

Body 8.43-11.27 mm in length, 4.56-5.88 mm in width, ochraceous to almost black.

Head dorsally with several punctures on paraclypei; clypeus without a pair of subapical hair-like setae, each paraclypeus with a single preocular submarginal setigerous puncture (Fig. 16); ocular index 2.20-3.10; interocellar index 4.8-7.0; length of antennal segments (in mm): 0.39-0.45 : 0.53-0.67 : 0.60-0.76 : 0.78-0.98 : 0.94-1.04.

Pronotal transverse discal impression behind calli usually conspicuously developed; anterior margin, lateral parts and posterior lobe more or less distinctly punctate; lateral margins with 5-6 submarginal setigerous punctures (Fig. 15). Propleural depression and basal half of posterior convexity distinctly punctate.

Scutellum punctate, except anterolateral angles and apex; punctures of the same size as those on pronotum.

Clavus with one complete and two partial rows of punctures; mesocorial disc almost evenly punctate, punctures almost of the same size as those on pronotum; exocorium with very dense puncturation, punctures smaller than those on mesocorium; costa narrow, almost entirely separated from exocorium, bearing 2 setigerous punctures (Fig. 15).

Male hind femora with large subapical tooth on dorsal margin, and several smaller teeth on ventral margin, hind tibiae carinated and bearing small subbasal tubercles (Fig. 17); female hind femora with several strong setae on ventral margin, hind tibiae without tubercle.

Abdominal sterna distinctly punctate in lateral two thirds, sometimes puncturation of last two segments less distinct.

Male genitalia as in Figs 18-21.

TYPE DATA

Lectotype female (designated by LIS 1994a: 213): Hong Kong (BMNH).

MATERIAL EXAMINED

Lectotype, and 87 other specimens: **Bhutan**: British Bhutan, 8 exx. (IRSNB, UO); Mt Durel, 4 exx. (MNHN, UO). **China**: Canton, 2 exx. (MNHU); Kushan, Foochow, Fuz-zhen, 5 exx. (ZlP, UO); San-nen-Kai, Yunnan-Fou, 8 exx. (NNML). **Hong Kong**: 2 exx. (BMNH). **India**: Ajmer-Rajpudana, 1 ex. (IRSNB); Karikal, Karumbagaram, 1 ex. (IRSNB); Yercaud, Shevaroy Hills, 3 exx. (IRSNB, UO); Cinchona, Anamalai Hills, 16 exx. (IRSNB, ZMA, UO); Trichinopoli, 6 exx. (MNHN, UO); Madura, 1 ex. (HNHM); Bombay, 1 ex. (HNHM); Calcutta, 1 ex. (HNHM); Matheran, 4 exx. (HNHM); Pedong, Darjeeling, 3 exx. (BMNH, UO);

Agumbe Ghat, Shimoga Dist., Mysore St., 1 ex. (NSMT); Madras State, Anamalai Hills, Kadamparai, 1 ex. (NNML); Kalimpong, 1 ex. (ZIP). **Laos**: Ban Ban, 1 ex. (BMNH). **Nepal**: Birethanti, Kaski Dist., 1 ex. (NSMT); Kathmandu Valley, Godavari, 1 ex. (TLM); Central Nepal, road Pokhara - Goropani, 1 ex. (UO); Barabhise reg., Ting-Sang-La, 2 exx. (TLM); South Dhaulagiri, Myangdi Kholan Muri, 1 ex. (UO); Kathmandu-Balaju, 1 ex. (UO). **Sri Lanka**: Punduloya, 1 ex. (OXUM); Uva P. near Madulsima, 1 ex. (BMNH); Ceylan, Nuw Eliya, 1 ex. (MNHN). **Thailand**: Chieng Mai Province, Doi Inthanon National Park, 1 ex. (ZMUC); Doi Inthanon, 3 exx. (NSMT, UO); Shan States, Manders, 1 ex. (BMNH). **Vietnam**: Tonkin, reg. de Hoa-Binh, 1 ex. (MNHN); Tam Dao, 1 ex. (ZIP).

DISTRIBUTION

Bhutan, Cambodia, China (Yunnan, Guangdong, Fujian), Hong Kong, India, Laos, Nepal, Sri Lanka, Thailand, Vietnam.

REMARK

A status of the species was clarified by LIS (1994a).

Macroscytus annulipes HORVÁTH

(Figs 22-28)

Macroscytus annulipes HORVÁTH, 1919: 242; FROESCHNER 1967: 17; LIS 1994b: 325, 1995b: 144, 1996: 220.

Macroscytus cheesmanae J.A. LIS, 1993b: 44 (as *cheesmani*), 1995b: 144 (emend.), **syn. n.**

DESCRIPTION

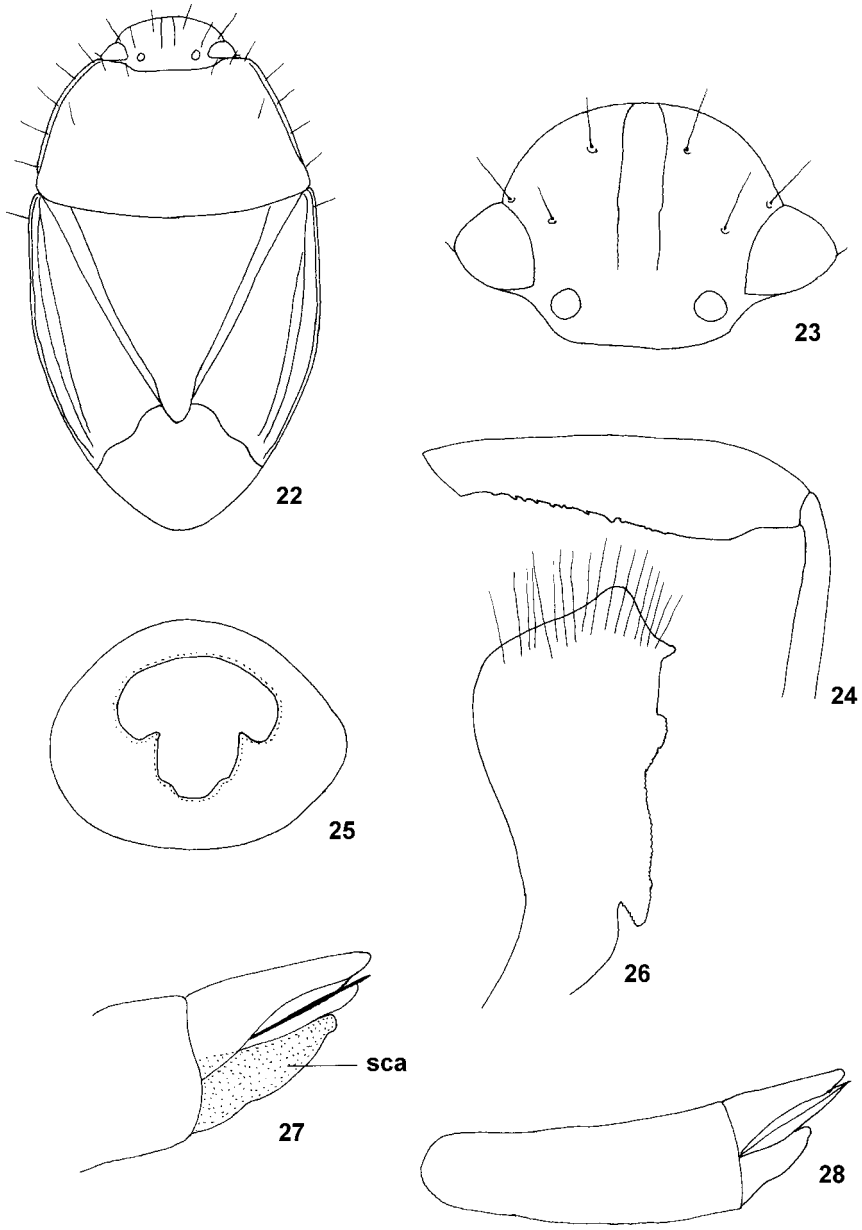
Body 7.61-8.83 mm in length, 4.02-4.96 mm in width, pale castaneous to almost black, posterior margin and umbones of pronotum, exocorium, basal part of mesocorium and clavus clearly yellowish brown.

Head dorsally slightly wrinkled in lateral parts of paraclypei; clypeus without a pair of subapical hair-like setae, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 23); ocular index 2.08-2.36, interocellar index 5.8-7.5; length of antennal segments (in mm): 0.35-0.42 : 0.34-0.46 : 0.58-0.67 : 0.68-0.78 : 0.74-0.84.

Pronotal disc without or with shallow transverse impression behind calli, dorsal surface of pronotum generally weakly punctate; lateral margins with 3-6 submarginal setigerous punctures (Fig. 22). Propleural depression with distinct large punctures.

Scutellum almost impunctate, bearing only few punctures in its middle.

Clavus with three rows of punctures (one complete and two partial); mesocorium evenly punctate; puncturation of exocorium denser than that of mesocorium; costa narrow, almost entirely separated from exocorium, bearing a single setigerous puncture (Fig. 22).



22-28. *Macroscytus annulipes* HORV.: 22 - body outline; 23 - head; 24 - male posterior femur and base of tibia; 25 - male genital capsule, dorsal view; 26 - paramere; 27 - apical part of penis (sca – second conjunctival appendage); 28 - penis

Legs clearly paler than remaining parts of the body, yellowish brown with broad dark brown stripe on femora; tibia darker near tarsus, spines castaneous, tarsi yellowish brown; hind tibiae with neither denticles nor emargination on inner margin, hind femora with a few small teeth (Fig. 24).

Abdominal sterna smooth and polished, with punctures close to sutures; each segment with a triangular patch of dense fine punctures posterior to spiracle; sterna III-VI with several punctures also anterior to each spiracle.

Male genitalia as in Figs 25-28.

TYPE DATA

Lectotype male (designated by LIS, 1999c: 207) of *Macroscytus annulipes* HORVÁTH: New Guinea, Friedrich-Wilhelmshafen [=Madang] (HNHM).

Holotype male of *Macroscytus cheesmanae* J.A. LIS: Papua New Guinea, Kokoda (BMNH).

MATERIAL EXAMINED

Lectotype of *Macroscytus annulipes*, Holotype of *Macroscytus cheesmanae*, 17 paratypes of *Macroscytus cheesmanae*, and 54 other specimens: **Bismarck Archipelago**: 2 exx. (MNHN); New Britain, Volupai, 1 ex. (BMH). **Papua New Guinea**: Kokoda, 16 paratypes of *M. cheesmanae* (BMNH, UO); Madang District, Finisterre Mts., Moro, 1 paratype of *M. cheesmanae*: (BMNH); Madang Province, Nagada Harbour, 51 exx. (OXUM).

DISTRIBUTION

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

REMARKS

Personal examination of the type material of *M. annulipes* allowed to treat *M. cheesmanae* as a junior synonym of the former. Figures 10 and 11 in the paper on New Guinean species of *Macroscytus* (LIS, 1993b: 45) actually represent *M. annulipes* (not *M. astrolabicus*).

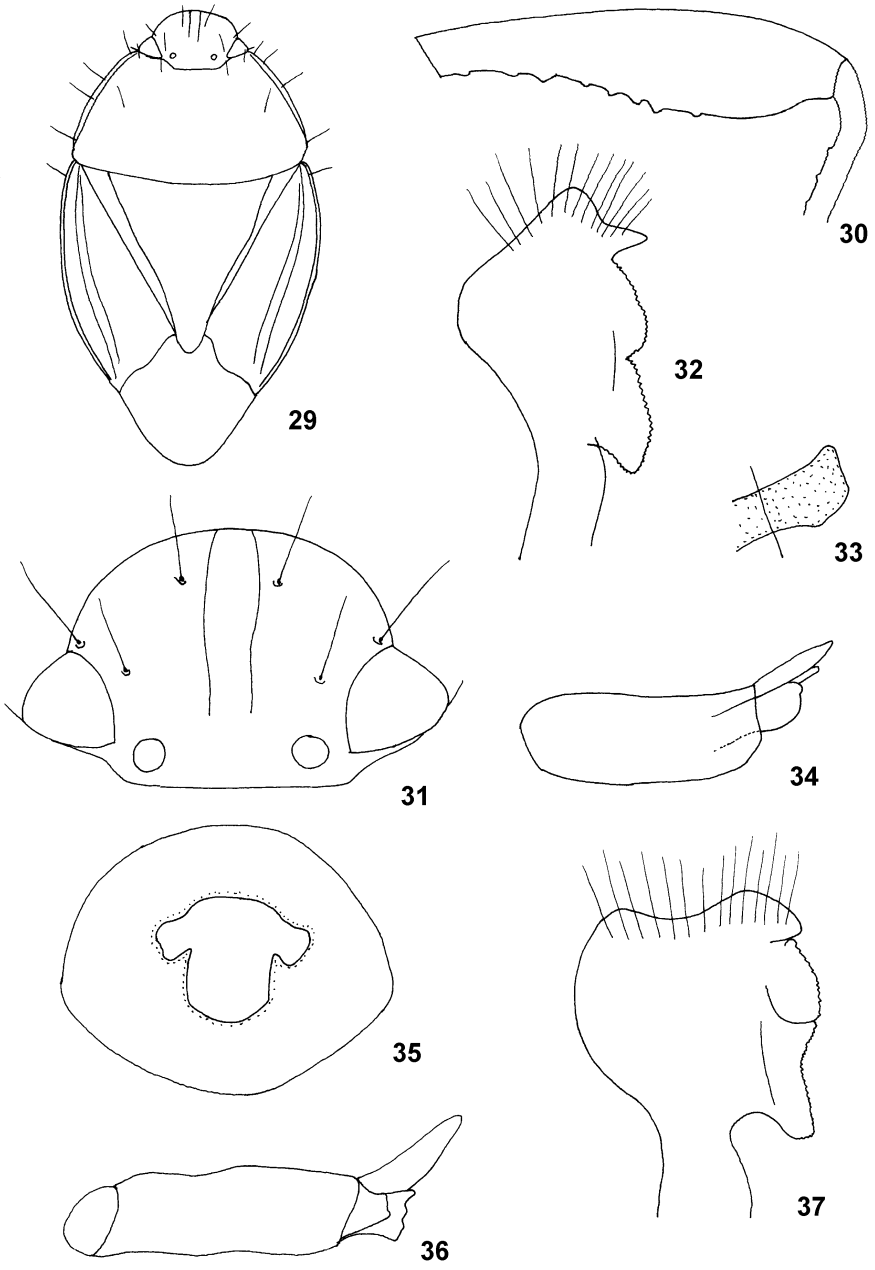
***Macroscytus annulipoides* J.A. LIS**

(Figs 29-35)

Macroscytus annulipoides J.A. LIS, 1999a: 460.

DESCRIPTION

Body 7.17-8.76 mm in length, 3.96-4.75 mm in width, from pale castaneous to dark castaneous, sometimes almost black; entire umbones and posterior margin of pronotum more or less broadly yellowish brown or whitish yellow, making pronotal disc sharply bicoloured; hemelytra paler than pronotum and scutellum, basal third of mesocorium and entire exocorium yellowish brown, yellow or whitish yellow.



29-35. *Macroscytus annulipoides* J.A. Lis, 36-37. *Macroscytus aquilus* Froesch.: 29 - body outline; 30 - male posterior femur and base of tibia; 31 - head; 32, 37 - paramere; 33 - second conjunctival appendage in penis; 34, 36 - penis; 35 - male genital capsule, dorsal view

Head with dorsal surface at first sight looking impunctate, bearing only small and hardly visible punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 31); ocular index 2.10-2.50; interocellar index 5.2-7.7; length of antennal segments (in mm): 0.29-0.33 : 0.33-0.42 : 0.57-0.69 : 0.63-0.78 : 0.78-0.88.

Puncturation of pronotal disc more or less distinct; transverse discal impression behind calli absent; lateral margins of pronotum with 4-5 submarginal setigerous punctures bearing long hair-like setae (Fig. 29). Anterior convexity of propleuron punctate anteriorly; posterior convexity with a few irregularly scattered large punctures; propleural depression with a row of large, coarse punctures.

Puncturation of scutellar disc more or less dense, well visible in the median part.

Mesocorium almost evenly punctate; exocorium sparsely punctate, punctures brown or dark brown in basal half, almost colourless or colourless in the posterior; costa very narrow, almost entirely separated from exocorium, without or with a single setigerous puncture (Fig. 29).

Femora yellowish brown, yellow or whitish yellow, sometimes basally brown; tibiae yellowish brown, yellow or whitish yellow, getting darker towards tarsi; dorsal margin of hind male femur with a row of very small teeth (Fig. 30); male hind tibia with a few very small, almost indistinct dark denticles on its inner margin (Fig. 30); female hind femur and tibia without denticles.

Abdominal sterna almost impunctate, usually with fine and almost indistinct scattered punctures close to lateral margins, around trichobothria and posterior to spiracles.

Male genitalia as in Figs 32-35.

TYPE DATA

Holotype male: Australia, North Queensland, Tully Falls (QMB).

MATERIAL EXAMINED

Holotype, 20 paratypes, and 10 other specimens: **Australia**: Queensland, Flying Fish Pt., 1 paratype (QMB); Queensland, Tully Falls, 4 paratypes (QMB, UO); Queensland, Bellenden Ker Base Stn., 5 paratypes (QMB, UO); Queensland, Bellenden Ker Range, 7 paratypes (QMB, UO); Queensland, Stone Ck., 2 paratypes (QMB, UO); Queensland, Kirrama Range, 1 paratype (QMB); Queensland, Mt. Webb Nat. Park, 50km N. Cooktown, 10 exx. (QMB, UO).

DISTRIBUTION

Australia.

Macroscytus aquilus FROESCHNER

(Figs 36-37)

Macroscytus aquilus FROESCHNER, 1967: 17; LIS, 1995b: 144, 1996: 220.

DESCRIPTION

Body 7.78-8.01 mm in length, 4.46-4.65 mm in width, from piceous to black.

Head with dorsal surface impunctate; clypeus subapically without a pair of setigerous punctures; each paraclypeus submarginally with a single preocular setigerous puncture; ocular index 2.20-2.21; length of antennal segments (in mm): 0.36 : 0.44 : 0.45 : 0.56, 5th missing.

Anterior half of pronotal disc impunctate except for few scattered small punctures laterally and behind head; transverse discal impression behind calli absent; posterior half of disc with scattered small punctures; lateral margins of pronotum with 6 submarginal setigerous punctures bearing long hair-like setae. Anterior convexity of propleuron impunctate, except for a patch of small punctures; posterior convexity virtually impunctate; propleural depression with a few punctures.

Puncturation of scutellar disc sparse, especially well visible in apical third; punctures a little larger than those of pronotum.

Mesocorium almost evenly punctate; exocorium with punctures finer than those of scutellum; costa somewhat flattened, with a single setigerous puncture bearing long hair-like seta.

Legs unicolorous; male tibiae with weak basal emargination followed by 5-7 very small denticles; female hind tibiae simple.

Abdominal sterna almost impunctate, weakly and irregularly wrinkled laterally; each segment with a row of punctures along segmental suture, and a patch of small punctures anterior and posterior to spiracle.

Male genitalia as in Figs 36-37.

TYPE DATA

Holotype male: Bismarck Islands, New Ireland, Lemkanin (ZMUC).

MATERIAL EXAMINED

Holotype, and 1 paratype: **Bismarck Archipelago**: New Ireland, Lemkanin, 1 paratype (ZMUC).

DISTRIBUTION

Bismarck Archipelago (New Ireland).

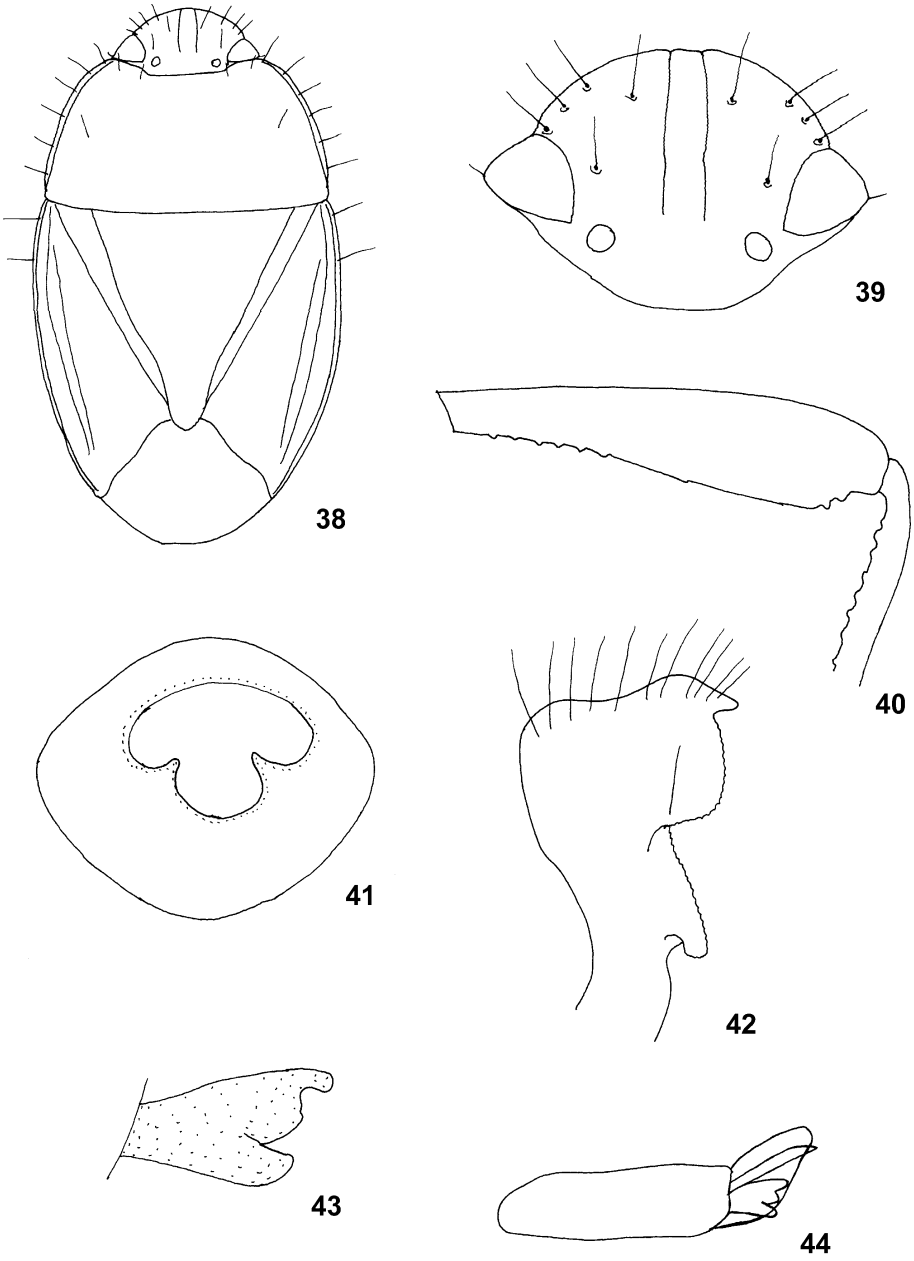
Macroscytus arnhemicus J.A. LIS

(Figs 38-44)

Macroscytus arnhemicus J.A. LIS, 1999a: 463.

DESCRIPTION

Body 7.23-8.17 mm in length, 3.83-4.32 mm in width, from dark castaneous to almost black.



38-44. *Macroscytus arnhemicus* J.A. Lis: 38 - body outline; 39 - head; 40 - male posterior femur and base of tibia; 41 - male genital capsule, dorsal view; 42 - paramere; 43 - second conjunctival appendage in penis; 44 - penis

Head with dorsal surface bearing only tiny and hardly visible punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with 3-4 (very rarely with 2) setigerous punctures bearing long hair-like setae (Fig. 39); ocular index 2.23-2.40; interocellar index 6.7-10.8; length of antennal segments (in mm): 0.30-0.38 : 0.42-0.51 : 0.41-0.50 : 0.57-0.63 : 0.65-0.72.

Puncturation of pronotal disc weak; transverse discal impression behind calli absent or very shallow; lateral margins of pronotum with 5-7 submarginal setigerous punctures bearing long hair-like setae (Fig. 38). Anterior convexity of propleuron impunctate, sometimes with a few small punctures, posterior convexity weakly punctate with large punctures, propleural depression densely and coarsely punctate.

Scutellum with coarse large punctures.

Mesocorial disc almost evenly punctate; exocorium densely punctate; costa very narrow, entirely separated from exocorium, bearing 1-2 setigerous punctures (Fig. 38).

Male and female hind femur with a row of small tubercles on its dorsal margin, subapical teeth very small, almost indistinct (Fig. 40); male hind tibia with small denticles (Fig. 40), female hind tibia simple.

Abdominal sterna more or less polished, almost totally impunctate except for a row of punctures close to each segmental suture, and a few punctures posterior to spiracles and trichobothria; female specimens sometimes with distinct wrinkles laterally to spiracles.

Male genitalia as in Figs 41-44.

TYPE DATA

Holotype male: Australia, Northern Territory, Arnhem Hwy at South Alligator R. (QMB).

MATERIAL EXAMINED

Holotype, and 27 paratypes: **Australia**: Northern Territory, Sth. Alligator Inn, 10 paratypes (QMB, UO); Northern Territory, South Alligator R., 5 paratypes (NTM, UO); Northern Territory, 12km NNW of Mt. Cahill, 1 paratype (NTM); Northern Territory, Limestone Gorge, 2 paratypes (NTM); Northern Territory, Nourlangie Creek, 1 paratype (NTM); Northern Territory, Darwin, East Pl. Res., 1 paratype (NTM); Queensland, Moreton Is., Tertiary Dune Nr Blue Lagoon, 1 paratype (QMB); Queensland, Taroom District, 4 paratypes (QMB, UO); Queensland, Rocky Knob, 10km SE of Toowoomba, 1 paratype (QMB); Queensland, South Percy Is., 1 paratype (QMB).

DISTRIBUTION

Australia.

Macroscytus astrolabicus HORVÁTH
(Figs 45-51)

Macroscytus astrolabicus HORVÁTH, 1919: 242; LIS 1994b: 322 & 325, 1995b: 144, 1996: 220.
Macroscytus annulipes, not of HORVÁTH: LIS 1993b: 45, figs 10 & 11.

DESCRIPTION

Body 7.57-8.12 mm in length, 4.25-4.46 mm in width, head, pronotum and scutellum from blackish brown to black, hemelytra castaneous or dark castaneous, entirely umbones and extreme posterior margin of pronotum clearly yellowish brown.

Head dorsally with numerous hardly visible tiny punctures, paraclypei striated and wrinkled, impunctate or bearing single clearly visible punctures; clypeus without a pair of subapical hair-like setae, each paraclypeus with two submarginal setigerous punctures (Fig. 46); ocular index 2.65-2.80, interocellar index 3.0-4.0; length of antennal segments (in mm): 0.37-0.42 : 0.43-0.49 : 0.52-0.55 : 0.68-0.72 : 0.83-0.85.

Pronotal disc without transverse impression behind calli, its surface punctate with small punctures behind head and in lateral parts, and with large punctures behind calli; lateral margins with 4-5 submarginal setigerous punctures (Fig. 45). Anterior convexity of propleuron with punctures only in its apical part, posterior convexity punctate only basally, propleural depression with a row or band of large coarse punctures.

Scutellar disc with a patch of few large punctures in its median part.

Clavus with two clearly visible rows of punctures (one long and one short); mesocorium sparsely punctate; exocorium with dense puncturation; costa narrow, almost entirely separated from exocorium, bearing a single setigerous puncture (Fig. 45).

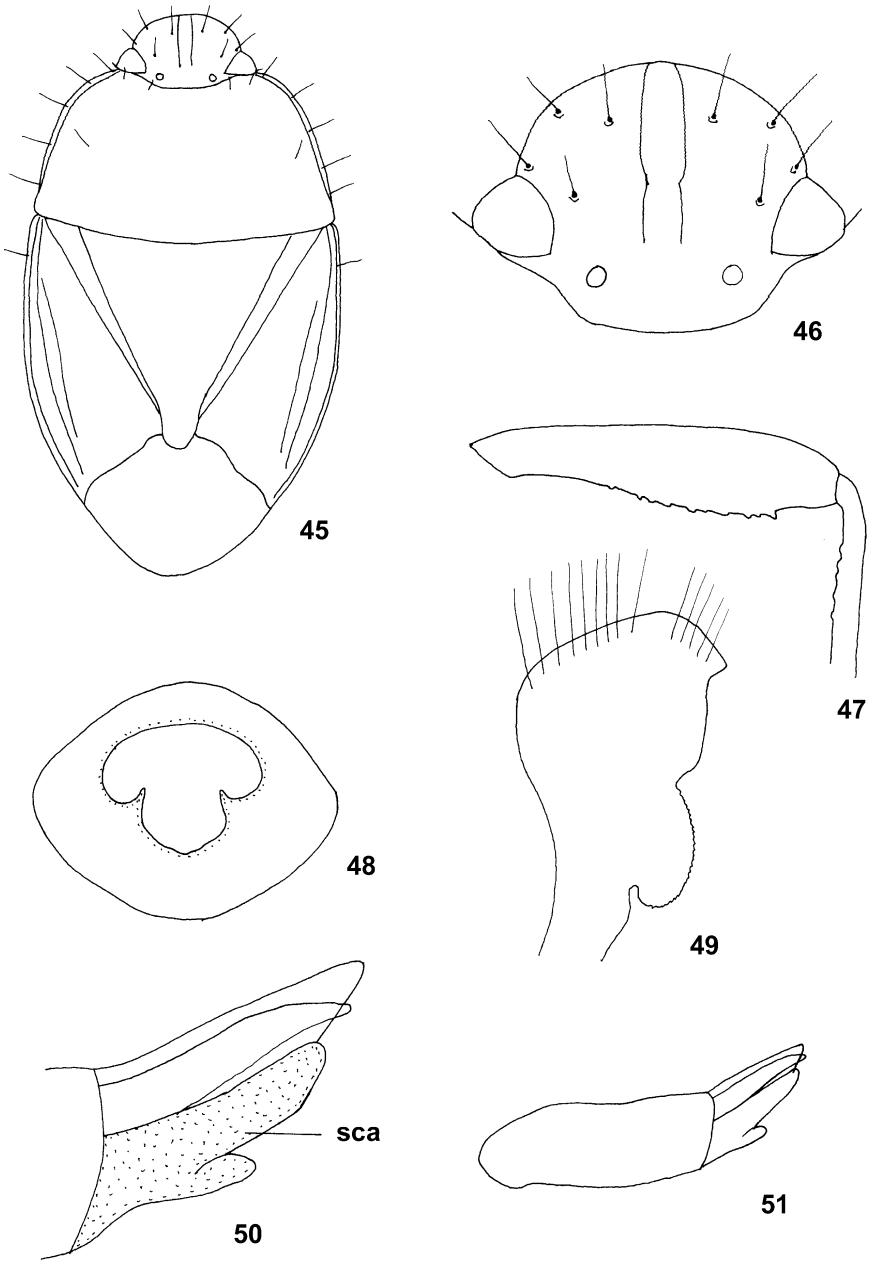
Legs clearly paler than remaining body parts, yellowish brown with broad dark brown stripe on femora; each tibia getting darker towards tarsus, the latter yellowish brown; male hind tibiae with a row of very small tubercles on inner margin, male hind femora with a row of well visible small teeth on dorsal margin (Fig. 47); female hind tibiae simple, female hind femora with a row of small teeth on dorsal margin.

Abdominal sterna smooth and polished, with punctures close to sutures; each segment laterally wrinkled and bearing a triangular patch of dense fine punctures anterior and posterior to spiracle.

Male genitalia as in Figs 48-51.

TYPE DATA

Lectotype male (present designation): N. Guinea, Biró 1901; Mt Hansemann, Astrolabe B.; *astrolabicus* det. Horváth; Lectotype *Macroscytus astrolabicus* Horv., labelled by R.C. Froeschner '59 (HNHM).



45-51. *Macroscytus astrolabicus* HORV.: 45 - body outline; 46 - head; 47 - male posterior femur and base of tibia; 48 - male genital capsule, dorsal view; 49 - paramere; 50 - apical part of penis (sca – second conjunctival appendage); 51 - penis

MATERIAL EXAMINED

Lectotype, and 3 other specimens: **Bismarck Archipelago**: 1 ex. (UO); **Papua New Guinea**: NE Morobe, Wau, 2 exx. (BMH).

DISTRIBUTION

Bismarck Archipelago (first record), Papua New Guinea.

Macroscytus australis (ERICHSON)

(Figs 52-58)

Cydnus australis ERICHSON, 1842: 275.
Aethus leptospermi DALLAS, 1851: 119, nomen nudum.
Aethus leptospermi BUTLER in WHITE & BUTLER, 1874: 25 (syn. by SIGNORET 1883a: 483).
Aethus lifuanus MONTROUZIER, 1861: 62 (syn. by SIGNORET 1881: 647).
Hahnia (*Cydnus*) *australis*: SIGNORET 1883a: 483.
Geotomus lansbergi SIGNORET, 1883b: 48 (as *landsbergi*) (syn. by LIS 1996: 221).
Hahnia australis: KIRKALDY 1909: 25 [part]; DISTANT 1920: 145; MYERS 1922: 4, 1926: 510; MYERS & CHINA 1928: 379.
Geocnethus australis: HORVÁTH 1919: 246.
Philapodemus australis: WOODWARD 1953: 311 & 315; 1956: 428; HICKMAN 1978: 45; LARIVIÉRE 1995: 18.
Macroscytus australicus [sic!]: SIGNORET 1881: 647.
Macroscytus australis: LIS 1995b: 144, 1999a: 464.

DESCRIPTION

Body 5.41-7.03 mm in length, 3.09-4.18 mm in width, from castaneous to almost black, sometimes posterior margin of pronotum and entire corium slightly paler in shade.

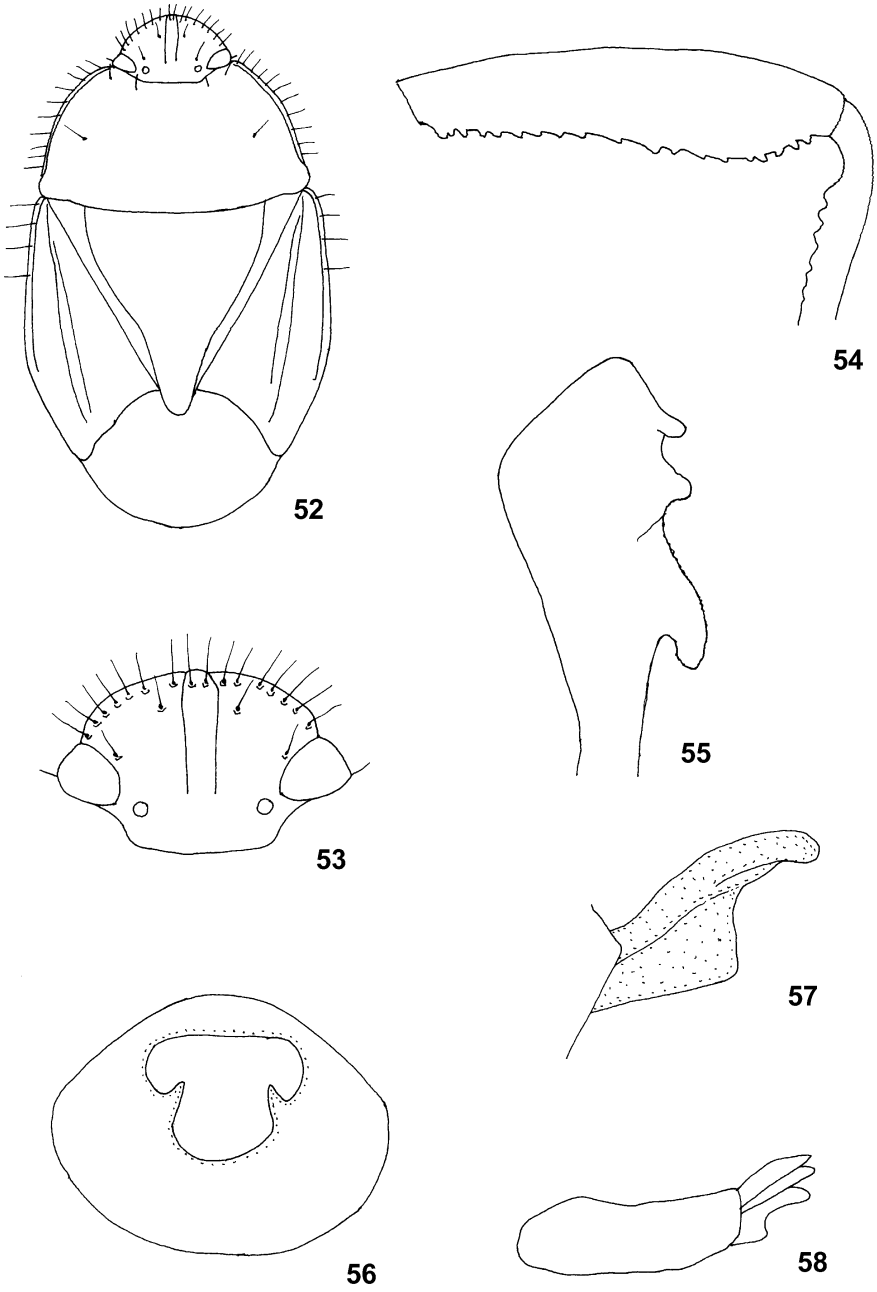
Head dorsally wrinkled and slightly punctate, clypeus subapically with a pair of setigerous punctures bearing long hair-like setae (Fig. 53); each paraclypeus with a row of 4-7 submarginal setigerous punctures bearing long hair-like setae (Fig. 53); ocular index 3.18-4.30; interocellar index 5.5-8.0; length of antennal segments (in mm): 0.34-0.41 : 0.35-0.43 : 0.36-0.45 : 0.40-0.45 : 0.43-0.47.

Pronotal disc densely punctate, except calli and posterior margin; transverse discal impression behind calli absent or very shallow, almost indistinct; lateral margins with 8-12 submarginal setigerous punctures bearing long hair-like setae (Fig. 52); anterior convexity of propleuron sometimes with a few small punctures anteriorly, posterior convexity impunctate or with a few scattered punctures, propleural depression with a band of coarse punctures.

Scutellum densely punctate with exception of its apex and anterolateral angles.

Mesocorial disc densely evenly punctate; exocorium evenly punctate; costa moderately broad, separated from exocorium only in its basal two thirds, bearing 3-5 setigerous punctures with long hair-like setae (Fig. 52).

Male hind femur with numerous well visible denticles on dorsal margin, male hind tibia with a row of small tubercles (Fig. 54); female hind femur without denticles on dorsal margin; female hind tibia without tubercles.



52-58. *Macroscytus australis* (ERICHS.): 52 - body outline; 53 - head; 54 - male posterior femur and base of tibia; 55 - paramere; 56 - male genital capsule, dorsal view; 57 - second conjunctival appendage in penis; 58 - penis

Abdominal sterna almost totally impunctate, except for rows of punctures paralleling segmental sutures, and patches of small punctures around trichobothria, as well as anteriorly and posteriorly to spiracles.

Male genitalia as in Figs 55-58.

TYPE DATA

Lectotype female (designated by LIS 1999c: 207) of *Cydnus australis* ERICHSON: Vandiemensland [= Tasmania] (MNHU).

Lectotype female (designated by LIS 1996: 221) of *Aethus leptospermi* BUTLER: New Zealand (BMNH).

Lectotype male (designated by LIS 1996: 221) of *Aethus lifuanus* MONTROUZIER: Lifu (NHMW).

Lectotype female (designated by SYNAVE 1969: 2, as Holotype) of *Geotomus lansbergi* SIGNORET: Indonesia, Java Oriental, M. Ardjoeno (IRSNB).

MATERIAL EXAMINED

Lectotype of *Cydnus australis*, Lectotype of *Aethus leptospermi*, Lectotype of *Aethus lifuanus*, Lectotype of *Geotomus lansbergi*, and 37 other specimens: **Australia**: Queensland, Bakerville, 4 exx. (DPI, UO); Queensland, Bellenden Ker Range, 1 ex. (QMB); Queensland, Lake Broadwater via Dalby, 1 ex. (QMB); Queensland, Boggom, via Taroom, 1 ex. (QMB); Queensland, Port Denison, 2 exx. (IRSNB); New South Wales, Ryde, 2 exx. (HNHM); New South Wales, Richmond River, 2 exx. (BMH); New South Wales, Sydeny, 1 ex. (BMNH); New South Wales, Upper Tumut Gorge, Snowy Mts., 1 ex. (QMB); Northern Territory, Ayers Rock, 1 ex. (TLM); Lord Howe I., 2 exx. (SAM); Tasmania, 3 exx. (BMNH, MNHN); Western Australia, Tallering Stn., 1 ex. (WAM); Western Australia, Burnbury, 2 exx. (WAM); Western Australia, Capel, 4 exx. (WAM, UO); Western Australia, Lake Gwelup, 1 ex. (NTM); Western Australia, Clover Dale Hasd., 1 ex. (NTM);. **Bismarck Archipelago**: New Britain, Birara, 1 ex. (BMNH). **New Caledonia**: Canala, 2 exx. (MNHN); Anse Vata, 1 ex. (BMH); Hienghene, 1 ex. (HNHM). **New Zealand**: Motuihi I., Nr. Auckland, 1 ex. (BMH); Port Waikato, 1 ex. (BMNH).

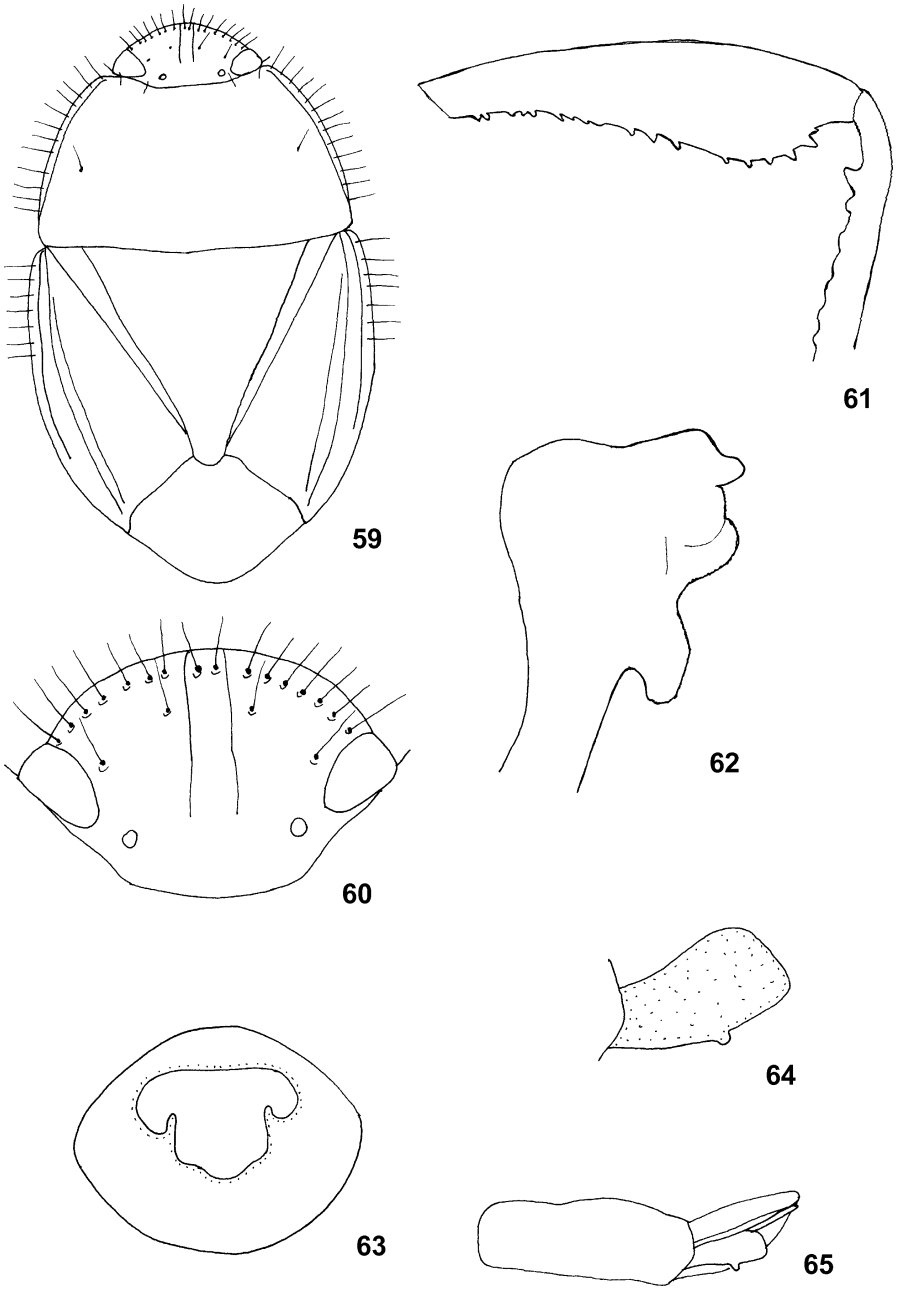
DISTRIBUTION

Australia (incl. Tasmania and Lord Howe Island), Indonesia (Java), New Britain (first record), New Caledonia, New Zealand.

Macroscytus australoides J.A. LIS

(Figs 59-65)

Macroscytus australoides J.A. LIS, 1999a: 466.



59-65. *Macroscytus australoides* J.A. Lis: 59 - body outline; 60 - head; 61 - male posterior femur and base of tibia; 62 - paramere; 63 - male genital capsule, dorsal view; 64 - second conjunctival appendage in penis; 65 - penis

DESCRIPTION

Body 6.08-7.13 mm in length, 3.71-4.55 mm in width, from dark castaneous to blackish brown, posterior margin of pronotum slightly more yellowish brown than remaining parts of its disc.

Head with dorsal surface bearing numerous small, almost evenly spaced punctures, laterally striated; clypeus subapically with a pair of setigerous punctures bearing long hair-like setae (Fig. 60); each paraclypeus with a submarginal row of 7 setigerous punctures bearing long hair-like setae (Fig. 60); ocular index 2.48-3.03; interocellar index 7.8-9.1; length of antennal segments (in mm): 0.28-0.35 : 0.35-0.44: 0.36-0.42 : 0.43-0.51 : 0.44-0.50.

Pronotal disc almost impunctate, bearing only several punctures of two types (smaller and larger), calli impunctate; discal transverse impression behind calli absent or very shallow, almost indistinct, bearing several coarse punctures and numerous wrinkles; lateral margins of pronotum with 12-15 submarginal setigerous punctures bearing long hair-like setae (Fig. 59); anterior convexity of propleuron alutaceous and impunctate, posterior convexity with a few punctures close to propleural depression, the latter with rows of well separated coarse punctures.

Scutellum densely striated and punctate.

Mesocorial disc weakly, evenly punctate; puncturation of exocorium more dense than that of mesocorium; costa separated from exocorium only in its basal two thirds, its margin with a row of 5-8 (very rarely 4) setigerous punctures bearing long hair-like setae (Fig. 59).

Femora brown or castaneous, tibiae whitish yellow or yellowish brown, tarsi yellowish brown or pale brown; male hind femur with numerous well visible denticles, subapical teeth clearly developed (Fig. 61); male hind tibia with large subbasal lobe-like denticle followed by smaller denticle and then several smaller tubercles (Fig. 61).

Abdominal sterna almost totally impunctate, except for rows of punctures paralleling segmental sutures, and a few punctures close to spiracles and trichobothria.

Male genitalia as in Figs 62-65.

TYPE DATA

Holotype male: South Australia, Coorong, S. of Meninge (BMNH).

MATERIAL EXAMINED

Holotype, 3 paratypes, and 14 other specimens: **Australia**: New South Wales, Nygan distr., 3 exx. (UQIC, UO); South Australia, Underdale, 3 paratypes (SAM, UO); South Australia, Along railway line Goyder Siding yo Bowmans Junctn., 1 ex. (SAM); Queensland, Brisbane, 3 exx. (UQIC, UO); Queensland, Taroom District, Vine Thicket on hill, 1 ex (QMB); Queensland, Taroom District, Boggomoss, 4 exx. (QMB, UO); Queensland, Texas, 1 ex. (HNHM); Western Australia, Barnabie, 1 ex. (SAM).

DISTRIBUTION

Australia.

Macroscytus badius (WALKER)

(Figs 66-72)

Cydnus brunneus, not of FABRICIUS: SCHIØDTE 1848: 453 [part].
Aethus badius WALKER, 1867: 159.
Macroscytus badius: DISTANT 1899: 222, 1902: 95, 1918: 118; MOIZUDDIN & AHAMD 1990: 325 [part]; LIS 1991a: 184, 1994a: 236.
Macroscytus brunneus, not of FABRICIUS: SIGNORET 1883a: 477 [part]; ATKINSON 1887: 54; LETHIERRY & SEVERIN 1893: 70 [part]; DISTANT 1902: 95; OSHANIN 1906: 12 [part] , 1912: 2 [part]; BREDDIN 1909: 263; KIRKALDY 1910: 112; CHANDRA 1953: 87; STICHEL 1962: 775 [part]; SIENKIEWICZ 1964: 137 [part]; MOIZUDDIN & AHMAD 1990: 325 [part].
Macroscytus expansus SIGNORET, 1883a: 479; ATKINSON 1887: 55; LETHIERRY & SEVERIN 1893: 70; DISTANT 1902: 97, 1918: 118; KUMAR 1962: 45, 50, 53, 54, 56; MOIZUDDIN & AHMAD 1990: 325 (syn. by LIS 1994a: 236).
Macroscytus subaeneus, not of DALLAS: DISTANT 1901: 101 [part]; MAXWELL-LEFROY 1909: 306; PAIVA 1918: 3, 1919: 351; HSIAO et al. 1977: 46 [part]; AHMAD et al. 1979: 15 & 18.

DESCRIPTION

Body 5.70-7.83 mm in length, 3.15-4.44 mm in width, from pale brown to black-brown, corium paler; sometimes apical parts of umbones and posterior margin of pronotum slightly lighter than remaining surface of pronotal disc.

Head dorsally impunctate, except for setigerous punctures and several almost indistinct tiny punctures on paraclypei; clypeus without subapical setigerous punctures, each paraclypeus with a row of 4-8 submarginal hair-like setae (Fig. 67); ocular index 2.10-2.80; interocellar index 9.0-15.0; length of antennal segments (in mm): 0.24-0.35 : 0.32-0.50 : 0.27-0.42 : 0.36-0.53 : 0.43-0.54.

Pronotum weakly or moderately punctate, calli and posterior fifth of disc impunctate, transverse discal impression behind calli absent or shallow; lateral margins with 9-13 submarginal setigerous punctures (Fig. 66). Anterior convexity of propleuron apically sparsely punctate; depression and posterior convexity densely punctate.

Puncturation of scutellum denser than that of pronotal disc, punctures slightly larger than those on the latter.

Corium distinctly punctate; clavus with one complete and one or two partial rows of punctures; mesocorial disc and exocorium almost evenly punctate; costa entirely separated from exocorium, bearing 4-7 setigerous punctures (Fig. 66).

Hind femora with large subapical tooth on dorsal margin (Fig. 68); male hind tibiae carinate, without denticles (Fig. 68).

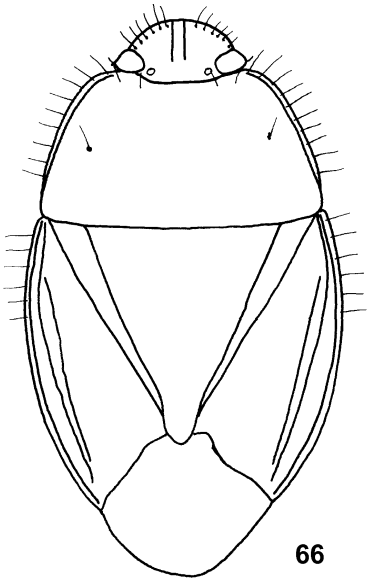
Abdominal sterna slightly transversely wrinkled, impunctate or with small punctures posterior to spiracles.

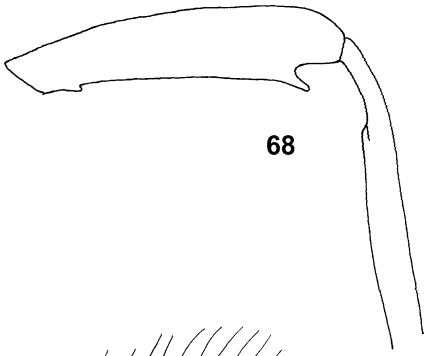
Male genitalia as in Figs 69-72.

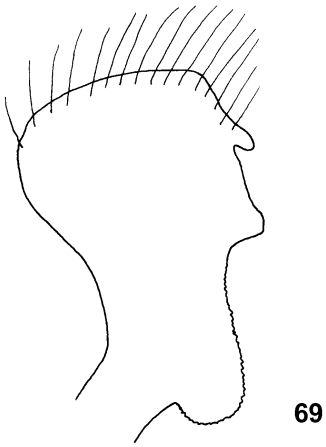
TYPE DATA

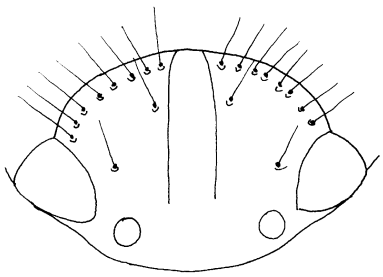
Lectotype male (designated by LIS, 1991a: 184) of *Aethus badius* WALKER: India (BMNH).

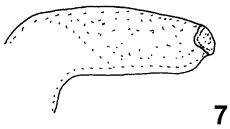
Syntype(s) of *Macroscytus expansus* SIGNORET: India, Bombay (BMNH, lost).

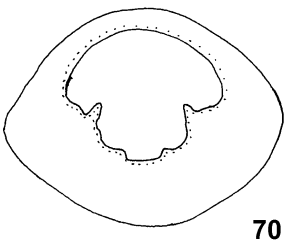


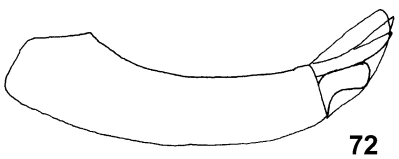












66-72. *Macroscytus badius* (WALK.): 66 - body outline; 67 - head; 68 - male posterior femur and base of tibia; 69 - paramere; 70 - male genital capsule, dorsal view; 71 - second conjunctival appendage in penis; 72 - penis

MATERIAL EXAMINED

Lectotype of *Aethus badius*, and 131 other specimens: **Burma**: Palon, Pegu, 1 ex. (MCSN); Schwego-Myo, 1 ex. (MCSN). **India**: Bengale, 2 exx. (MNHN); Inde, Arrah, 1 ex. (MNHN); Madras Airport, 11 exx. (NNML); Karumbagaram, Karikal Terr., 3 exx. (UO); Karikal, 4 exx. (NNML); Pondichery, 1 ex. (UO); Cote de Malabar, Mahe, 3 exx. (MNHN); Maissour, Silvapoora, 1 ex. (MNHN); Malabar, Walayar Forests, 1 ex. (IRSNB); Ajmer-Rajpudana, 1 ex. (IRSNB); Barway, 1 ex. (IRSNB); Madras State, Coimbatore, 15 exx. (ZMA, UO, NSMT, NNML); Delhi, 2 exx. (ZIP); Orissa, Konarak, 2 exx. (HNHM); Mettupalayam, Tamil Nadu, 2 exx. (HNHM); Orissa, Bhubaneswar town, 4 exx. (HNHM, UO); Chipurupalle, Vizagapatan Distr., 1 ex. (BMNH); Bhimavaram, Kistna Distr., 1 ex. (UO); Serampur, 1 ex. (UO); Bombay, 1 ex. (BMNH); Pilant, Rajasthan, 1 ex. (BMNH); Chikkaballappura, 1 ex. (BMNH); Mysore, 1 ex. (BMNH); Bandra, 1 ex. (BMNH); Annandale, Madras, 1 ex. (BMNH); Kolimpong, 1 ex. (ZIP); Kerala State, Trivandrum Distr., Poonmundi Range, 1 ex. (UO); Anamalai Hills, Cinchona, 1 ex. (NNML); Santiniketan, Birbhum, Bengal, 3 exx. (BMH); Meghalaya state, West Garo Hills, Bagmara, 2 exx. (NHMW); Dehra Dun, Kumaon Himalaya, 1 ex. (ZSMC). **Maldive Islands**: Gan Addu Atoll, 11 exx. (BMNH, UO); Villingilli, 16 exx. (TLM, UO). **Nepal**: Hetaura, 1 ex. (HNHM). **Sri Lanka**: Ceylon, Diyatalawa, 1 ex. (BMNH); Ceylon, Hambantota, 2 exx. (BMNH, UO); Ceylon, Yala, 1 ex. (BMNH); Elephant Pass N.P., 1 ex. (BMNH); Bopikiya, 1 ex. (BMNH); Arugam Bay, 1 ex. (SMNS); Uppuvell, 1 ex. (SMNS); Kandy, 1 ex. (ZIP); National Park Wilpattu, Talawila, 8 exx. (ZIP, UO); National Park Yala, Mahasilawa, 5 exx. (ZlP, UO); 9 km ESE Maradankadawalkka, 6 exx. (ZlP, UO); Colombo, 1 ex. (ZIP).

DISTRIBUTON

Burma, India, Maldive Islands, Nepal (first record), Sri Lanka.

The occurrence of this species in China (WU, 1935) still remains unconfirmed and seems rather doubtful (LIS 1994a). The records from Japan pertain to *Aethus pseudindicus* (see LIS 1994a).

Macroscytus bipunctatus J.A. LIS

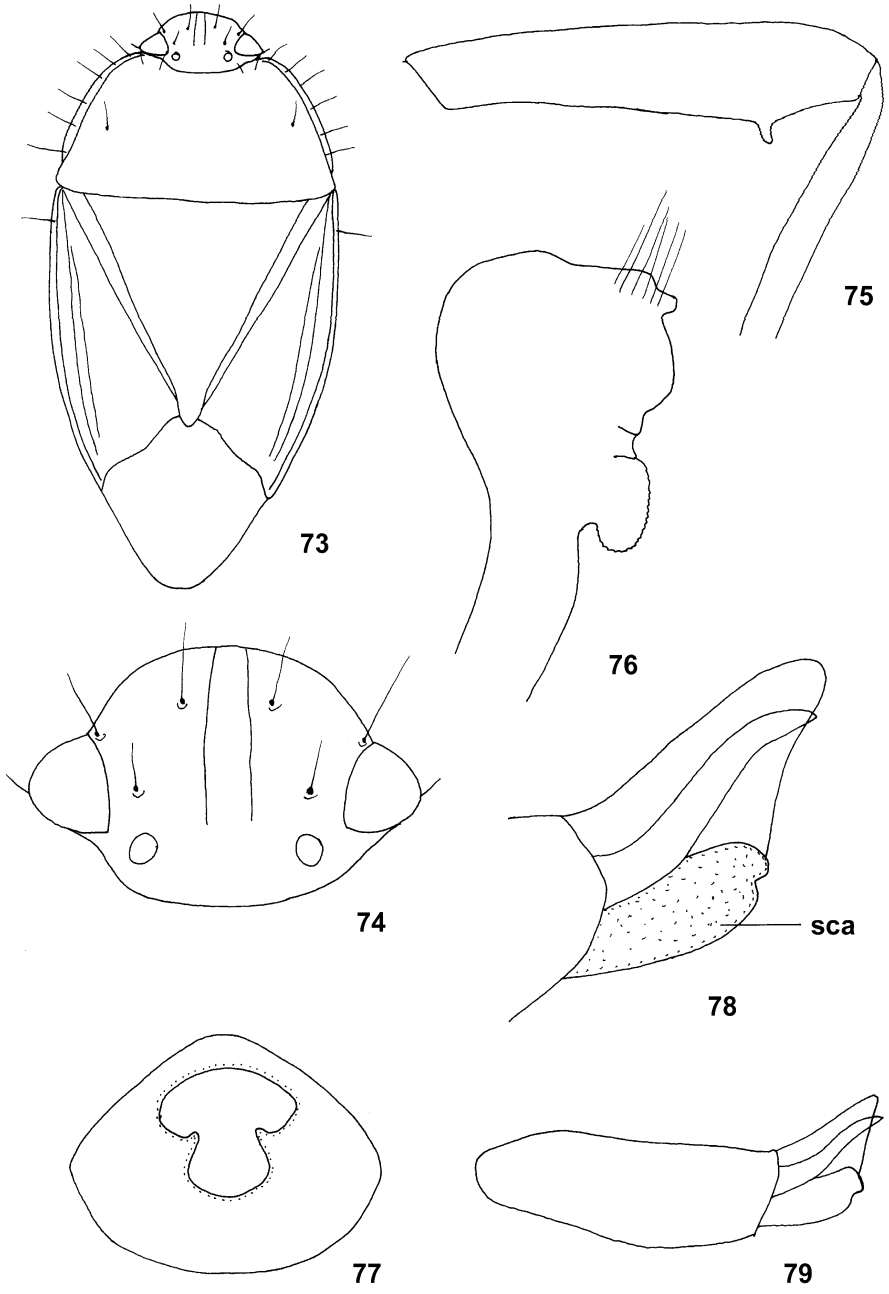
(Figs 73-79)

Macroscytus bipunctatus J.A. LIS, 1994a: 214.

DESCRIPTION

Body 9.36-11.81 mm in length, 4.95-5.96 mm in width, black, corium usually paler, umbones of pronotum intensely ochraceous or yellowish brown.

Head dorsally distinctly punctate, except clypeus and vertex; clypeus without a subapical pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 74); ocular index 2.40-3.22; interocellar



73-79. *Macroscytus bipunctatus* J.A. Lis: 73 - body outline; 74 - head; 75 - male posterior femur and base of tibia; 76 - paramere; 77 - male genital capsule, dorsal view; 78 - apical part of penis (sca – second conjunctival appendage); 79 - penis

index 4.7-8.0; length of antennal segments: 0.40-0.55 : 0.59-0.74 : 0.71-0.84 : 0.98-1.14 : 1.09-1.26.

Pronotal disc with large deep punctures; umbones and posterior margin impunctate; transverse discal impression behind calli absent; lateral margins with 5-6 submarginal setigerous punctures bearing long hair-like setae (Fig. 73). Propleural depression and posterior convexity with deep large punctures, anterior convexity with smaller punctures laterally.

Scutellum punctate with large deep punctures.

Clavus with one complete and two partial rows of punctures; mesocorial disc almost evenly punctate; exocorium densely punctate; all punctures smaller than those on scutellum and pronotum; costa narrow, entirely separated from exocorium, bearing a single setigerous puncture (Fig. 73).

Male hind femur with large subapical tooth on dorsal margin (Fig. 75), female hind femur with small tooth; hind tibiae in both sexes without tubercles and denticles on inner margin (Fig. 75).

Abdominal sterna with distinct punctures anteriorly, posteriorly and mesad of spiracles; each segmental suture accompanied by a row of dense punctures.

Male genitalia as in Figs 76-79.

TYPE DATA

Holotype male: Malaysia, Borneo, Sabah, Mts. Crocker, 16 miles NW of Keningau (NSMT).

MATERIAL EXAMINED

Holotype, 7 paratypes, and 6 other specimens: **Malaysia**: Borneo, Sabah, Mts. Crocker, 16 miles NW of Keningau, 2 paratypes, 2 exx. (NSMT, UO); Sabah, 1/2 way Rd Melligan - Long Pa Sian, 1 paratype (NNML); Sabah, Gn Kinabalu, Sg. Liwagu nr Kundasang bridges, 1 paratype (NNML); Sabah, Long Pa Sian between LPS-L Samando (2km from Sarawak border), 2 paratype (NNML); Borneo Sabah, Crocker Mt., Gununag Emas, 2 exx. (USMB, UO); Malaya, Pahang, Cameron Highlands, 2 km S Tanah Rata, on Tapah Road, 1 ex. (HNHM). **Indonesia**: East Borneo, Sanga Sanga, Moorjawa, 1 paratype (UO); O. Borneo, Samarinda, 1 ex. (MZLU).

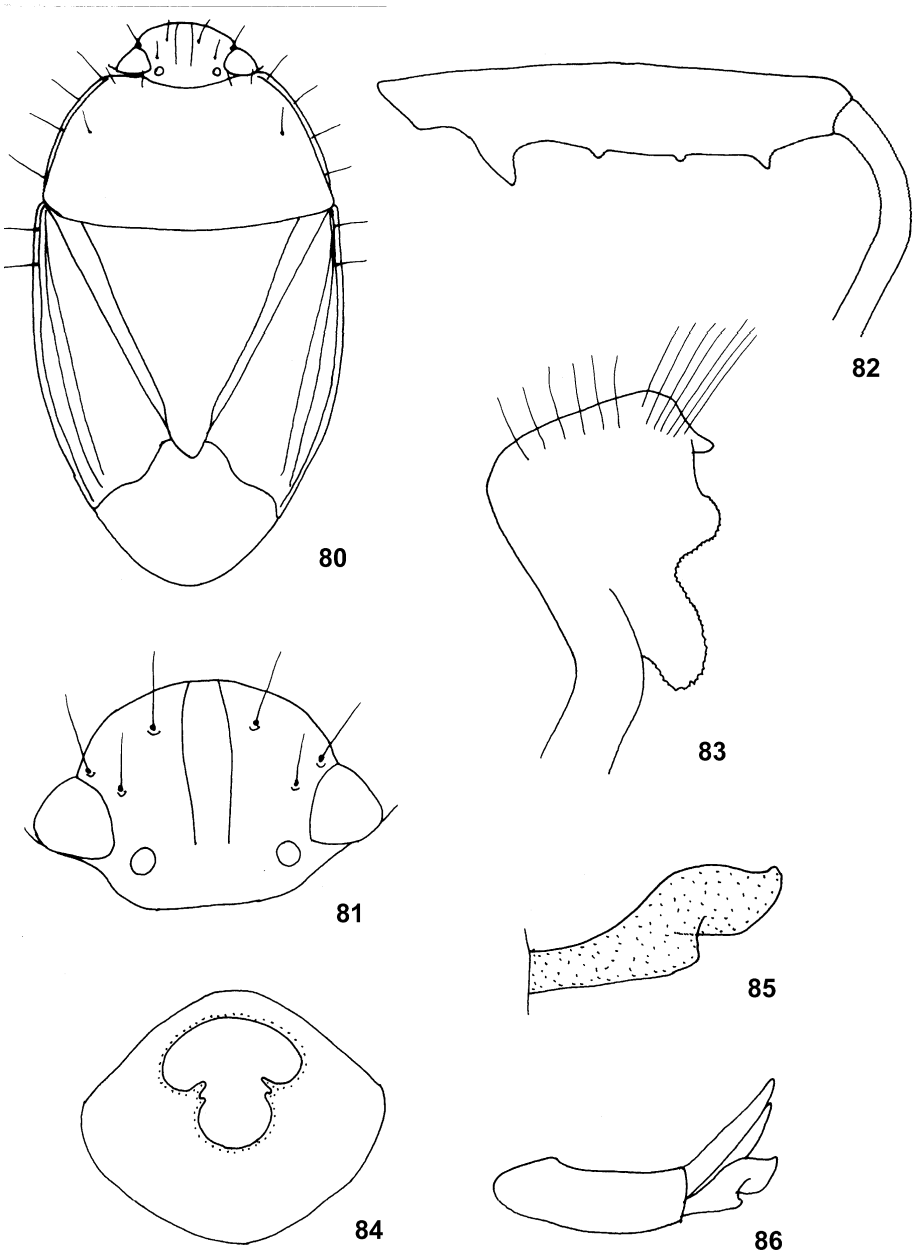
DISTRIBUTION

Indonesia (Borneo Kalimantan), Malaysia (Borneo Sabah, Malaya - first record).

Macroscytus bisetosus J.A. LIS

(Figs 80-86)

Macroscytus transversus, not of BURMEISTER: LIS 1994a: 233 [part].
Macroscytus bisetosus J.A. LIS, 1999a: 467.



80-86. *Macroscytus bisetosus* J.A. Lis: 80 - body outline; 81 - head; 82 - male posterior femur and base of tibia; 83 - paramere; 84 - male genital capsule, dorsal view; 85 - second conjunctival appendage in penis; 86 - penis

DESCRIPTION

Body 8.68-10.15 mm in length, 4.70-5.67 mm in width, from castaneous to almost black, entire umbones and posterior margin of pronotum clearly yellowish brown or whitish yellow, basal third of mesocorium and entire exocorium always yellowish brown, yellow or whitish yellow.

Head with dorsal surface at first sight looking impunctate, but bearing small, irregularly scattered punctures; clypeus subapically without setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 81); ocular index 2.18-2.30; interocellar index 6.7-9.0; length of antennal segments (in mm): 0.38-0.44 : 0.54-0.67 : 0.65-0.78 : 0.85-0.99 : 0.97-1.13.

Puncturation of pronotal disc more or less distinct, usually better visible behind calli; transverse discal impression absent; lateral margins of pronotum with 4 (rarely 5) submarginal setigerous punctures bearing long hair-like setae (Fig. 80). Anterior convexity of propleuron more or less punctate, posterior convexity distinctly punctate with irregularly scattered coarse punctures, propleural depression with a row of coarse punctures.

Scutellum with puncturation better visible in its median part.

Mesocorial disc almost evenly punctate with large punctures basally and small punctures apically; exocorium more or less densely punctate; costa narrow, entirely separated from exocorium, basally flattened and bearing two setigerous punctures (Fig. 80).

Dorsal margin of male hind femur with large subbasal tooth followed by 1-2 smaller teeth, and clearly visible apical tooth (Fig. 82); male hind tibia without denticles on its inner margin, its basal third distinctly bent outwards (Fig. 82); dorsal margin of female hind femur with more or less blunt apical denticle; female hind tibia straight, without denticles on its inner margin.

Abdominal sterna polished, each with a row of punctures close to segmental sutures, median two thirds of segments impunctate, lateral third with small, crowded punctures around trichobothria and posterior to spiracles.

Male genitalia as in Figs 83-86.

TYPE DATA

Holotype male: Australia, North Queensland, Little Cedar Ck., Mt. Spec (QMB).

MATERIAL EXAMINED

Holotype, 17 paratypes, and 12 other specimens: **Australia**: Queensland, Little Cedar Ck., Mt. Spec, 4 paratypes (QMB, UO); Queensland, Mt Misery summit, 1 paratype (QMB); Queensland, Saddle Mtn, 3 paratypes (QMB, UO); Queensland, Leo Creek Road, McIlwrith Range, 30km N.E. of Coen, 3 paratypes (QMB, UO); Queensland, East Caludie R., Iron Range, 2 paratypes (QMB); Queensland, Karnak-Devil's Thumb, 8-12Km NW Mossman, 1 paratype (QMB); Queensland, Mt Hayward, 2 paratypes (QMB); Queensland, Mt Hayward, 1

paratype (QMB); Queensland, Kirrama State Forest, via Cardwell, 4 exx. (UQIC, UO); Queensland, Iron Range, Cape York Pen., 2 exx. (UQIC, UO); Queensland, Emerald Ck., Mareeba, 2 exx. (DPI, UO); Queensland, the Boulders via Babinda, 1 ex. (UQIC); Queensland, Massey River, McIlwraith R., 1 ex. (DPI); Queensland, Churchill Ck., Mt. Lewis Road, Via Julatten, 1 ex. (UQIC).

DISTRIBUTION

Australia.

Macroscytus borneensis J.A. LIS

(Figs 87-93)

Macroscytus borneensis J.A. LIS, 1994a: 215.

DESCRIPTION

Body 8.95-12.05 mm in length, 4.70-6.08 mm in width, from castaneous to almost black, corium usually more brownish than pronotum and scutellum.

Head dorsally with numerous evenly spaced and almost invisible tiny punctures; clypeus without subapical pair of setigerous punctures, each paraclypeus with a single preocular submarginal setigerous puncture (Fig. 88); ocular index 1.73-2.38; interocellar index 5.7-8.4; length of antennal segments (in mm): 0.45-0.52 : 0.52-0.68 : 0.81-0.97 : 0.99-1.29 : 1.18-1.32.

Pronotum with transverse discal impression behind calli deep and distinct only laterally, bearing numerous punctures; anterior lobe of pronotal disc with a patch of punctures behind head and several punctures laterally, posterior lobe with numerous scattered punctures; lateral margins with 3-5 submarginal setigerous punctures (Fig. 87). Propleural depression and posterior convexity with large punctures, anterior convexity dulled by numerous tiny punctures.

Scutellum distinctly punctate, except anterolateral angles; apex with a few small punctures.

Clavus with one complete, and 1-2 partial rows of punctures; mesocorium almost evenly punctate; exocorium almost impunctate; punctures on corium smaller than those on pronotum and scutellum; costa narrow, almost entirely separated from exocorium, bearing 1-2 setigerous punctures (Fig. 87).

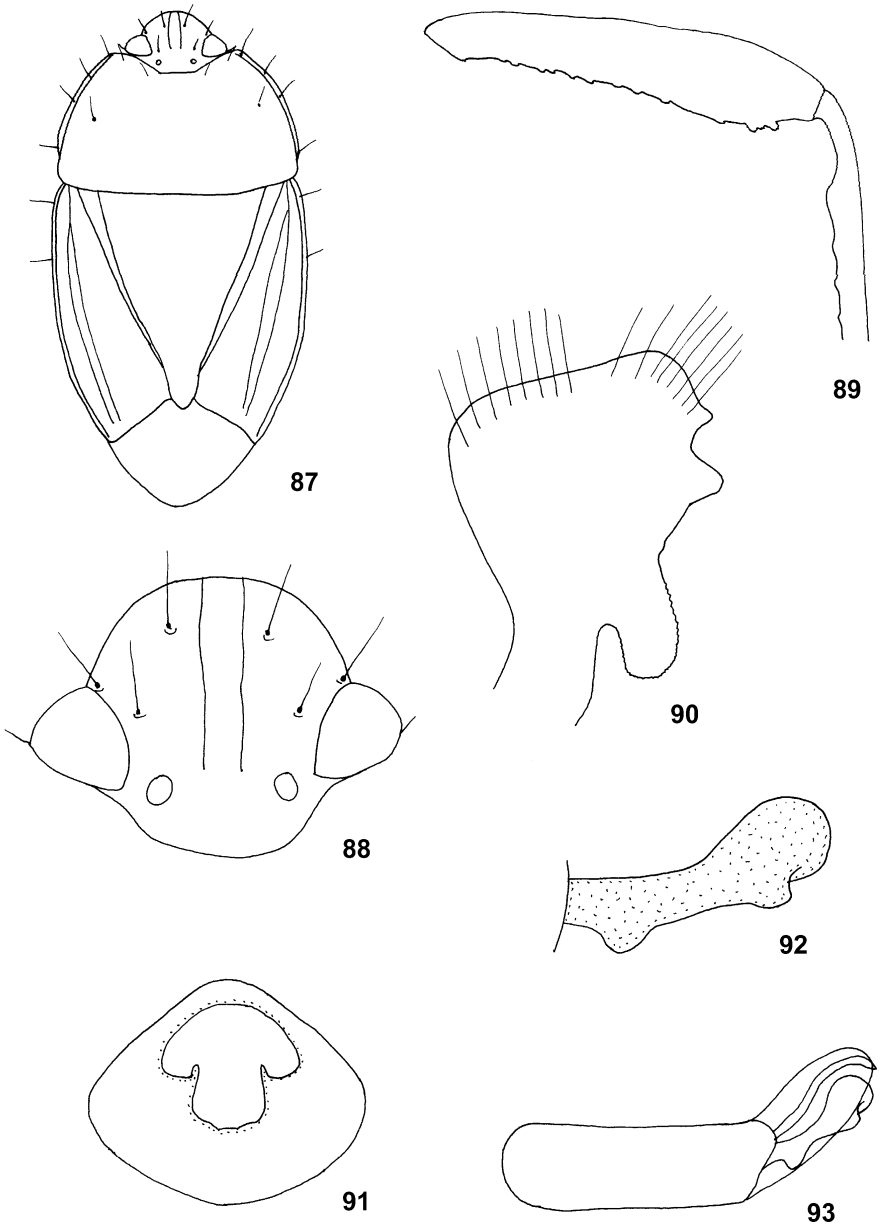
Hind femora with numerous small teeth on ventral margin, and distinct subapical tooth on the dorsal (Fig. 89); male hind tibia with several well visible tubercles on inner margin (Fig. 89).

Abdominal sterna wrinkled laterally, and with tiny punctures anterior and posterior to spiracles; segmental sutures with tiny punctures.

Male genitalia as in Figs 90-93.

TYPE DATA

Holotype male: Malaysia, North Borneo, Samarang, Nr Sandakan (BMNH).



87-93. *Macroscytus borneensis* J.A. Lis: 87 - body outline; 88 - head; 89 - male posterior femur and base of tibia; 90 - paramere; 91 - male genital capsule, dorsal view; 92 - second conjunctival appendage in penis; 93 - penis

MATERIAL EXAMINED

Holotype, 24 paratypes, and 7 other specimens: **Brunei**: Ulu, Temburong, 2 paratypes (BMNH, UO). **Malaysia**: Malaya, Kuala Lumpur, 17 paratypes (BMNH, UO); Malay Peninsula, Selangor, Bukit Kutu, 1 paratype (BMNH); Sarawak, Kuching, 1 paratype (BMNH); Sabah nr Long Pa Sia, 1 paratype (NNML); Sabah, Beaufort, 2 paratypes (NNML); Borneo, Sabah, 5 exx. (MNHN, UO); Sabah, Sipitang, Mendolong, 2 exx. (MZLU).

DISTRIBUTION

Brunei, Malaysia (Malaya, Borneo).

Macroscytus brunneus (FABRICIUS)

(Figs 94-98)

Cydnus brunneus FABRICIUS, 1803: 185.
Macroscytus brunneus: FIEBER 1861: 362.
Cydnus proximus RAMBUR, 1839: 112 (syn. by AMYOT 1845: 427).
Aethus opacus STÅL, 1854: 214 (syn. by SIGNORET 1881: 644).
Macroscytus scutellaris HORVÁTH, 1919: 238 (syn. by LINNAVUORI 1993: 25).
Macroscytus exiguus HORVÁTH, 1919: 238 (syn. by LINNAVUORI 1993: 25).
Macroscytus subaeneus, not of DALLAS: AHMAD & MOIZUDDIN 1977: 76; AHMAD et al. 1979: 15 & 18; MOIZUDDIN & AHMAD 1985: 163, 1990: 325 & 326.

DESCRIPTION

Body 6.00-9.13 mm in length, 3.25-4.86 mm in width, from pale brown to blackish brown, corium usually paler than pronotum and scutellum. In general appearance (habitus and body puncturation) very similar to *M. badius*.

Head dorsally impunctate, sometimes with distinct wrinkles and several almost indistinct tiny punctures on paraclypei; clypeus without subapical setigerous punctures (in several aberrant specimens one or two setigerous punctures on clypeus were found); each paraclypeus with a row of 4-8 submarginal hair-like setae (Fig. 95); ocular index 2.20-3.35; length of antennal segments (in mm): 0.30-0.43 : 0.38-0.61 : 0.28-0.51 : 0.48-0.71 : 0.54-0.77.

Pronotum weakly punctate, sometimes almost impunctate, transverse discal impression behind calli absent or very shallow; lateral margins with 8-13 submarginal setigerous punctures (Fig. 94). Anterior convexity of propleuron impunctate or almost impunctate, posterior convexity with a few punctures, propleural depression striated, sometimes bearing a row of more or less distinct punctures.

Scutellum more or less punctate, puncturation usually denser than that of pronotal disc.

Corium distinctly punctate; clavus with one complete and two partial rows of punctures; mesocorial disc almost evenly punctate with small punctures; exocorium almost evenly punctate, punctures larger than those on mesocorium; costa narrow, almost entirely separated from exocorium, bearing 4-7 setigerous punctures (Fig. 94).

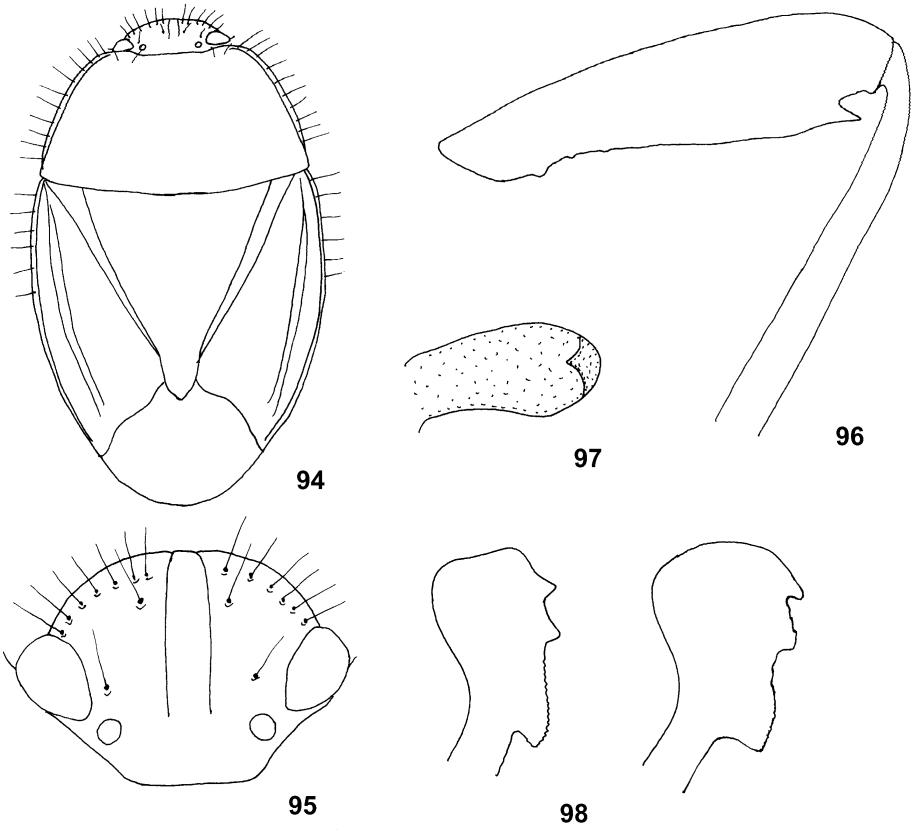
Hind femora with clearly visible subapical tooth on dorsal margin, that may vary in size; hind tibiae simple (Fig. 96).

Abdominal sterna laterally slightly transversely wrinkled, impunctate, except for a few small punctures posterior to spiracles.

Male genitalia as in Figs 97-98.

TYPE DATA

Lectotype male of *Cydnus brunneus* FABRICIUS (designated by LIS, 1994a: 239): Morocco, Tanger (ZMUC). Lectotype male of *Macroscytus scutellaris* HORVÁTH (designated by LINNAVUORI, 1977: 41): Mozambique, East Africa, Zambesi (HNHM). Syntype(s) of *Cydnus proximus* RAMBUR: Spain, env. of Cadiz (BMNH). Syntype(s) of *Aethus opacus* STÅL: South Africa, Caffraria (NNML).



94-98. *Macroscytus brunneus* (F.): 94 - body outline; 95 - head; 96 - male posterior femur and base of tibia; 97 - second conjunctival appendage in penis; 98 – variability of paramere

Lectotype male of *Macroscytus exiguus* HORVÁTH (designated by LINNAVUORI, 1977: 41): South Africa, Natal (HNHM). Lectotype male of *Macroscytus exiguus* HORVÁTH (designated by LINNAVUORI, 1977: 41): South Africa, Natal (HNHM).

MATERIAL EXAMINED

Lectotype of *Cydnus brunneus*, Lectotype of *Macroscytus scutellaris*, Lectotype of *Macroscytus exiguus*, and 379 other specimens: **Afghanistan**: Kizyl-Kha, 2 exx. (UO). **Algeria**: Laghouat, 1 ex. (MNHN); Randon, 1 ex. (MNHN). **Botswana**: Gaborone, 1 ex. (MZLU). **Canary Islands**: Gran Canaria, Artedara b. Fataja, 2 exx. (TLM); Gran Canaria,Ginamar, 3 exx. (MNHN). **Cyprus:** Paphos, 11 exx. (CMNH, UO). **Egypt**: Cairo, 2 exx. (NNML). **Greece**: Corfu, 3 exx. (NNML). **Iran:** 25 km S Minab, 1 ex. (NHMW); Bandar Langeh, 12 exx. (MNHN, UO). **Iraq**: Bagdad, 3 exx. (HNHM, UO). **Israel**: Askhelon, 6 exx. (CMNH); Hullah Valley, 2 exx. (ZSMC); EnGedi, 1 ex. (ZSMC). **Italy**: Sardinia, 1 ex. (HNHM). **Jordan**: Wadi Sir, n. Amman, 1 ex. (HNHM); Arda Road, 1 ex. (HNHM). **Morocco**: O El Moddah, 1 ex. (UO); Safi-Agadir road, 1 ex. (UO); Oudjda, 3 exx. (MNHN, UO). **Mozambique**: Lourenco Marques, Matola, Vila Salazar, 1 ex. (JEC). **Namibia**: Bushmanland, Klein Dobe, 11 exx. (MNHU, UO); Fish-River-Canyon, 6 exx. (MNHU, UO); Etoscha N.P., Namutoni, 6 exx. (MNHU, UO); Kavango, Popa Falls, 3 exx. (MNHU); East Caprivi, Mudumu N.P., Makatwa, 3 exx. (MNHU, UO); East Caprivi, Katima Mulilo, 2 exx. (MNHU); Ongongo Fall, Warmbad, Kaokoveld, 3 exx. (MNHU, UO); Kunene, 9km W Ruacana, 2 exx. (MNHU). **Oman**: Ruwi, 2 exx. (MZLU). **Pakistan**: Karachi, 4 exx. (NHMUK); Baluchistan, Quetta, 1 ex. (BMNH). **Portugal**: Algarve, Sta Barbara de N., 17 exx. (MNHN, UO). **Saudi Arabia**: Najd Region, 50 mi SE Riyadh, 6 exx. (JEC). **Senegal**: Dakar Bel-Air, 1 ex. (MNHN). **South Africa**: Natal, Empangeni area, 4 exx (NMP, UO); Natal, Mntunzini Garland Fm, 1 ex. (NMP); Natal, Mkuzi Game Reserve, 1 ex. (NMP); Mkuze Game Res., 1 ex. (UO); Natal, Itala Game Reserve, Louwsburg, 2 exx. (MNHU); Cape Prov., Oranje River, Vioolsdrif, 1 ex. (MNHU); Transvaal, Zoutpansberg [=Soutpansberg], 1 ex. (ZMPA). **Tunisia**: Boughrara, 4 exx. (HNHM); Maknassy, 8 exx. (MNHN, UO). **Turkey**: Prov. Urfa, Halfeti, valley of Euphrat, 2 exx. (HNHM). **Turkmenistan**: Kopet-Dagh Mts, 6 km S of Ipay-Kala, 1 ex. (HNHM); Kopet-Dagh Mts, 5 km S of Chull, 1 ex. (HNHM). **Zambia**: South Luangwa N.P., Mfuwe, Crocodile Farm, 1 ex. (MNHU); Muchinga Escarpment, 1 ex. (MNHU). **Zimbabwe**: St. Benedict, 30km NE Macheke, 2 exx. (TLM); Chinhoyi Caves, 1 ex. (NMP); Victoria Falls, Zambesi Nat. Park, 1 ex. (MNHU); Matabeleland, Lake Mutirikwi bei Masvingo, Kyle N.P., 11 exx. (MNHU, UO); Matabeleland, Matopos Nat. Park, 25 exx. (MNHU, UO); S. Rhodesia, Kariba, 182 exx. (JEC, UO).

DISTRIBUTION

Afghanistan, Albania, Algeria, Azerbaidjan, Botswana, Cameroon, Canary Islands, Cape Verde Islands, Central African Republic, ?China (North), Congo,

Croatia, Cyprus, Egypt, Ethiopia, France, Gambia, Ghana, Greece, Guinea, Iran, Iraq, Israel, Italy, Ivory Coast, Jordan (first record), Kazakhstan, Kenya, Liban, Libya, Macedonia, Mali, Malta, Morocco, Mozambique, Namibia (first record), Nigeria, Oman (first record), Pakistan, Portugal, Saudi Arabia, Senegal, Socotra, Somalia, South Africa, Spain, Sudan, Switzerland, Syria, Tadzhikistan, Tanzania (incl. Zanzibar), Turkey, Turkmenistan, Tunisia, Uganda, Uzbekistan, Yemen, Yugoslavia, Zaire, Zambia (first record), Zimbabwe (first record).

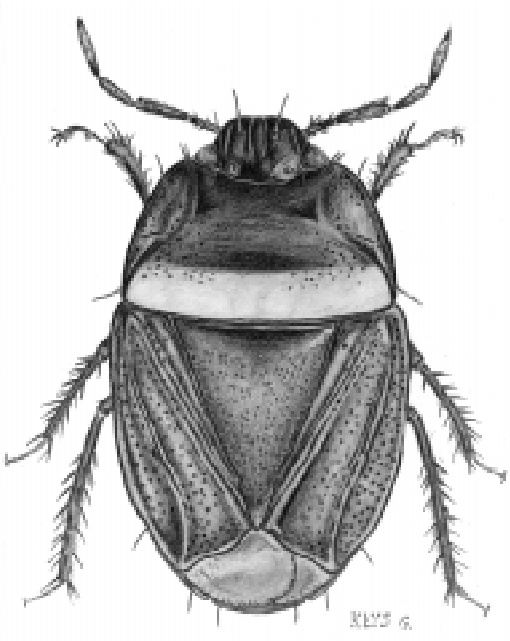
Macroscytus celebensis BREDDIN
(Figs 99)

Macroscytus celebensis BREDDIN, 1906: 36; BERGROTH 1908: 149; LIS 1991b: 307, 1994a: 217.

DESCRIPTION

Body 8.05-9.80 mm in length, 4.75-5.25 mm in width, black or blackish brown, except broad transverse yellowish brown band at posterior margin of pronotum (Fig. 99) and pale brown corium.

Head dorsally impunctate; clypeus without a pair of subapical setigerous punctures; each paraclypeus submarginally with a single preocular setigerous puncture; ocular index 3.15-3.52; interocellar index 3.3-4.2; length of antennal segments (in mm): 0.48-0.49 : 0.55-0.56 : 0.66-0.67 : 0.81-0.86 : 0.98-0.99.



99. *Macroscytus celebensis* BREDDIN, dorsal habitus (from LIS 1991b)

Lateral parts of pronotum somewhat flattened (Fig. 99); transverse discal impression behind calli absent; lateral margins with 3 submarginal setigerous punctures; anterior part of a disc with numerous small punctures forming an arcuate subapical transverse band, and irregular patch on either side; posterior half with a transverse broad band of small punctures not reaching the posterior margin. Propleuron with numerous small punctures on anterior convexity, depression with crowded coarse punctures which become finer and sparser posteriorly.

Scutellar disc with large coarse punctures.

Clavus with one complete and two partial rows of punctures; mesocorium and exocorium densely punctate; costa somewhat flattened, separated from exocorium only basally, bearing no setigerous punctures.

Hind femora subapically with small tooth.

Abdominal sterna laterally slightly wrinkled, each bearing a patch of punctures posterior and anterior to spiracle.

TYPE DATA

Syntype(s): female(s), South Celebes, Loka (lost or destroyed). Neotype (present designation): Indonesia, Sulawesi Is, 1 female, X-XI 1988, S. Nagai (NSMT).

MATERIAL EXAMINED

Neotype, and 2 other specimens: **Indonesia**: Sulawesi Utara, Dumoga-Bone National Park, Poniki trail, 1 ex. (IRSNB); North Sulawesi, Dumoga Bone National Park, 1 ex. (NNML).

DISTRIBUTION

Indonesia (Sulawesi).

REMARK

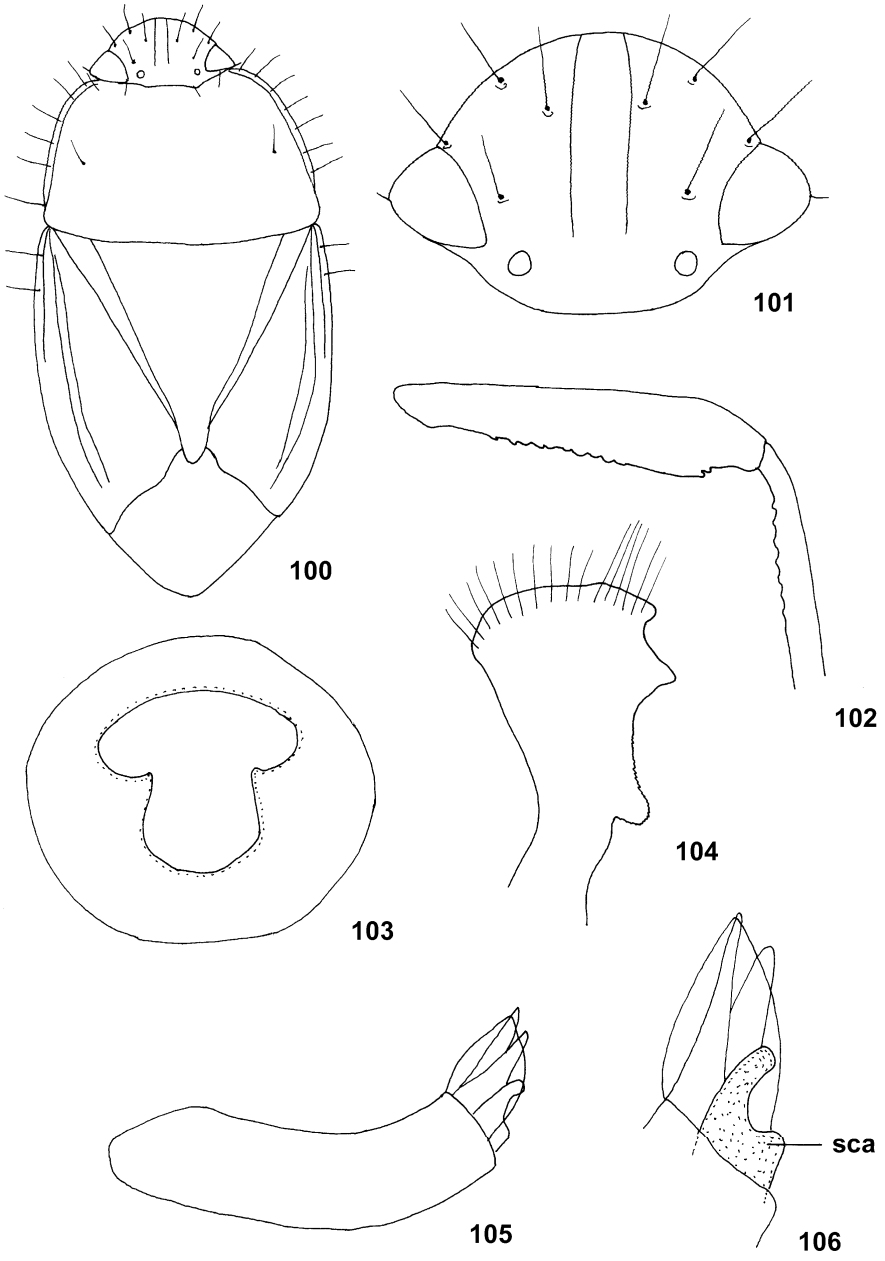
Male unknown.

Macroscytus comorensis sp. n.

(Figs 100-106)

DESCRIPTION

H e a d. Black, but lateral margins brownish in shade; dorsal surface slightly alutaceous, impunctate, bearing only a few punctures laterally; gular plate impunctate in anterior half, posterior part distinctly punctate; bucculae entirely coarsely punctate; clypeus free, as long as paraclypei, subapically without setigerous punctures, each paraclypeus submarginally with two setigerous punctures bearing hair-like setae (Fig. 101); eyes brown, ocular index 2.21; ocelli reddish brown, interocellar index 9.1, ocellar index 5.5; antennae brown; rostrum brown, reaching mid coxae.



100-106. *Macroscytus comorensis* sp. n.: 100 - body outline; 101 - head; 102 - male posterior femur and base of tibia; 103 - male genital capsule, dorsal view; 104 - paramere; 105 - penis; 106 - apical part of penis (sca – second conjunctival appendage)

P r o t h o r a x. Pronotum dark castaneous; pronotal disc with large punctures in its posterior half, calli impunctate and distinctly elevated; transverse discal impression shallow, with medially interrupted row of several coarse punctures behind calli; lateral margins of pronotum with 6-7 submarginal setigerous punctures bearing long hair-like setae (Fig. 100). Prosternal carinae low, weakly punctate; anterior and posterior convexities of propleuron punctate with large punctures, propleural depression with a band of coarse punctures.

M e s o t h o r a x. Scutellum dark castaneous, its disc weakly punctate, punctures as large as those on pronotum, irregularly scattered. Mesopleural evaporatorium with coarse longitudinal rugae, its posterior wedge-shaped polished band somewhat dulled, bearing a few large punctures.

M e t a t h o r a x. Hemelytra dark castaneous, punctate with almost colourless punctures; clavus with one complete and two incomplete rows of punctures; mesocorial disc almost evenly punctate, but puncturation in basal half weaker than in the apical; exocorium with puncturation more dense close to mesocorium; mesocorium and exocorium separated along their entire length; costa narrow, slightly convex and separated from exocorium only in its basal half, costal margin with two setigerous punctures bearing long hair-like setae (Fig. 100); membranal suture slightly bisinuate; membrane semihyaline, somewhat embrowned, its tip slightly surpassing the posterior extremity of abdomen. Metapleural evaporatorium with longitudinal rugae; lateral area of metapleuron impunctate, posterior area with a band of coarse punctures.

L e g s. Femora and tibiae castaneous, tarsi pale brown or brown; male hind femur (Fig. 102) with 2 subapical teeth on ventral margin, its dorsal margin with numerous denticles, and a single small subapical tooth; male hind tibia with a row of small tubercles (Fig. 102).

A b d o m e n. Sterna dark castaneous, distinctly punctate in lateral two thirds, punctures large and coarse. Ventral surface of male pygophore almost impunctate, bearing only single punctures laterally, its dorsal surface pilose, longitudinal sclerites on infolding of its dorsal rim well developed; opening of genital capsule as in Fig. 103, penis as in Fig. 105, second conjunctival appendage as in Fig. 106, paramere as in Fig. 104.

M e a s u r e m e n t s (in mm). Male only: body length 8.08; body width 4.31; head length 1.32; head width 1.97; pronotum length 2.27; pronotum width 3.91; scutellum length 3.07; scutellum width 2.47; antennal segments: 0.35 : 0.55 : 0.57, 4th and 5th segments missing.

TYPE MATERIAL EXAMINED

Holotype male: **Comoros**: Grande Comore, 4/5 km E. de Nioumbadjou, Bandalamadji, 640m, 11/14-III-1980, P. Viette, Muséum Paris (MNHN).

COMPARATIVE NOTES

At first glance the species is similar to *M. mayottensis*. Nevertheles, it can easily be separated from the latter by its puncturation of abdominal sterna

(punctures present in lateral third in *M. myottensis*, in lateral two thirds in *M. comorensis*), and puncturation of gular plate (almost impunctate, punctures present only in its posterior third in *M. myottensis*, punctures in the posterior half in *M. comorensis*). Moreover, both species differ also in their male genitalia and edentation of male hind femora.

DISTRIBUTION

Comoros.

Macroscytus dalawanus J.A. LIS

(Figs 107-113)

Macroscytus pfeifferi, not of SIGNORET: FROESCHNER 1967: 21.
Macroscytus dalawanus J.A. LIS, 1994a: 218.

DESCRIPTION

Body 9.36-11.57 mm in length, 4.71-5.88 mm in width, from castaneous to blackish brown, corium usually more brownish than pronotum and scutellum.

Head dorsally slightly wrinkled on paraclypei, impunctate; clypeus without a pair of submarginal setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 108); ocular index 1.77-2.32; interocellar index 6.6-8.0; length of antennal segments (in mm): 0.43-0.56 : 0.55-0.73 : 0.69-0.89 : 0.93-1.14 : 1.02-1.25.

Pronotum with distinct transverse discal impression behind calli, anterior lobe with small patch of punctures behind head, and a few punctures laterally, posterior lobe with punctures forming a transverse band; lateral margins with 4-6 submarginal setigerous punctures (Fig. 107). Propleuron alutaceous, depression and basal part of posterior convexity with numerous coarse punctures.

Scutellum distinctly punctate with numerous punctures in the middle of its disc.

Clavus with one complete and two partial rows of punctures; mesocorial disc with small, evenly spaced punctures; exocorium weakly punctate or almost impunctate; costa narrow, almost entirely separated from exocorium, bearing 2 setigerous punctures (Fig. 107).

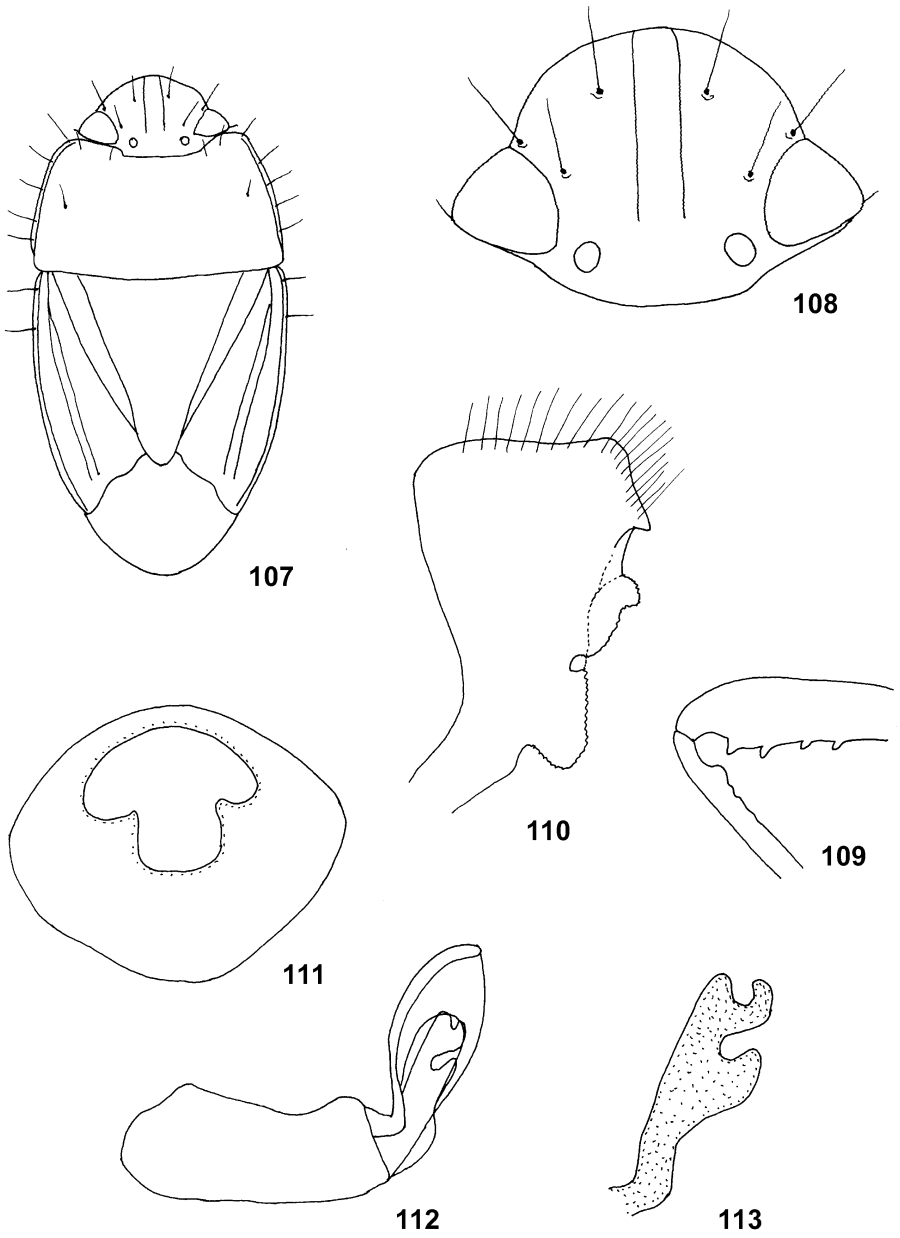
Male hind femora with distinct subapical tooth on dorsal margin, and several smaller teeth on ventral margin (Fig. 109); male hind tibiae with distinct subbasal tubercle, followed by a few more or less visible small denticles (Fig. 109); female hind femora with small subapical tooth on dorsal margin; female hind tibiae simple.

Abdominal sterna more or less wrinkled, with triangular patches of punctures posterior to spiracles.

Male genitalia as in Figs 110-113.

TYPE DATA

Holotype male: Indonesia, Java, Wynkoopsbay (IRSNB).



107-113. *Macroscytus dalawanus* J.A. Lis: 107 - body outline; 108 - head; 109 - male posterior femur and base of tibia; 110 - paramere; 111 - male genital capsule, dorsal view; 112 - penis; 113 - second conjunctival appendage in penis

MATERIAL EXAMINED

Holotype, 20 paratypes, and 1 other specimen: **Indonesia**: Indonesia, Java, Wynkoopsbay, 1 paratype (UO); Java, Ardja-Sari, Preanger, 1 paratype (ZMA); Java, Soekaboemi, 1 paratype (NNML); East Kalimantan, Mt Pemantus, 45km West of Sotek, 2 paratypes (NSMT). **Malaysia**: Malay Peninsula, 1 paratype (BMNH); Malay Peninsula, 1 paratype (UO); North Borneo, Sabah, Sandakan Distr., Rumidi, 1 paratype (UO); Sabah, Beaufort, confl. Pa Sia - Matang, 3 paratypes (NNML); Nature Trail, Borneo Sabah, Danum Valley, 70km W Lahat Datu, 1 paratype (ZMA); Sabah, Long Pa Sia, Airstrip along S Pa Sia, 1 paratype (NNML); Sabah, Long Pa Sia, 1 paratype (NNML); Sabah, 10km SE Ranau, 1 paratype (NNML); Sabah, Sipitang, Mendolong, 1 ex. (MZLU); Borneo, Sarawak, 16km N of Bario, Long Rapun, 1 paratype (NNML). **Philippines**: Balabac, Dalawan Bay, 1 paratype (ZMUC); Trident Mines, Central Palawan, 3 paratypes (NSMT, UO).

DISTRIBUTION

Malaysia (Malaya, Sabah, Sarawak), Indonesia (Java, Kalimantan), Philippines.

Macroscytus dominiqueae J.A. LIS

(Figs 114-120)

Macroscytus dominiqueae J.A. LIS, 1991c: 209, 1994a: 219.

DESCRIPTION

Body 9.05-12.25 mm in length, 5.01-6.61 mm in width, from castaneous to blackish brown.

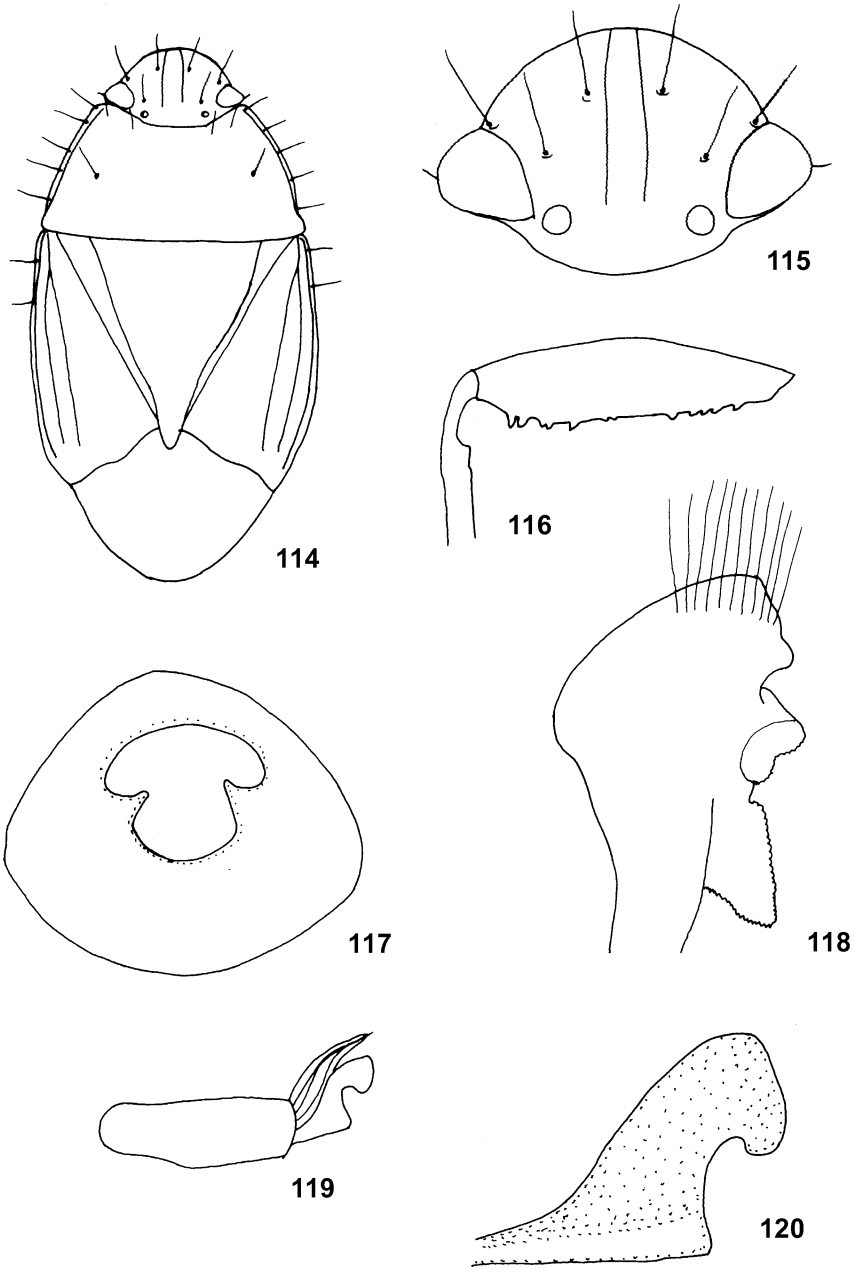
Head dorsally weakly punctate; clypeus without submarginal setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 115); ocular index 1.82-2.40; interocellar index 7.4-11.0; length of antennal segments (in mm): 0.41-0.47 : 0.46-0.72 : 0.71-0.94 : 0.95-1.11 : 1.09-1.26.

Pronotum with well developed transverse discal impression behind calli, usually bearing a row of punctures; anterior lobe with distinct punctures subapically and laterally; posterior lobe with irregularly scattered punctures; lateral margins with 5-6 submarginal setigerous punctures (Fig. 114). Propleuron alutaceous, depression and basal part of posterior convexity densely punctate.

Scutellum with numerous irregularly scattered punctures, base and apex impunctate.

Corium with punctures smaller than those on scutellum; meso- and exocorium almost evenly punctate; costa narrow, separated from exocorium in its anterior four fifths, slightly convex, costal margin with 2 setigerous punctures (Fig. 114).

Male hind femora with distinct subapical tooth on dorsal margin, and a few teeth on the ventral, tibiae with several subbasal tubercles (Fig. 116); female hind



114-120. *Macroscytus dominiqueae* J.A. Lis: 114 - body outline; 115 - head; 116 - male posterior femur and base of tibia; 117 - male genital capsule, dorsal view; 118 - paramere; 119 - penis; 120 - second conjunctival appendage in penis

femora with small, sometimes indistinct subapical tooth on dorsal margin, and several setae on the ventral, tibiae without tubercles.

Abdominal sterna smooth in the middle, sides distinctly wrinkled and bearing irregularly spaced coarse punctures.

Male genitalia as in Figs 117-120.

TYPE DATA

Holotype male: Vietnam, Cho-Ganh (MNHN).

MATERIAL EXAMINED

Holotype, 1 paratype, and 28 other specimens: **Cambodia**: Kompong Kedey, 1 ex. (BMNH). **China**: South China, Haut-Tonkin et Bas Yunnan, Entce Man-Hao, Muong-Hum (pres Lao-Kay) et Ban-Nam-Coun, 1 ex. (MNHN); Yunnan, env. Dadugan, 1 ex. (ZIP). **Hong Kong**: Hong Kong, 1 ex. (BMNH). **India**: Kairhana, Assam, 1 ex. (ZIP); Barodabri, 2 exx. (ZlP, UO). **Laos**: Luang Prabang, Ko Kieng, 3 exx. (BMNH, UO). **Malaysia**: Malaya, Pahang, Cameron Highlands, 7 exx. (BMNH, UO). **Thailand**: Loei Province, Phu Luang Wildlife Sanctuary, 5 exx. (ZMUC, UO); 240km NW Bangkok, 25km NW Lan-Sak, 1 ex. (NHMW); 170km NW Bangkok, 3km W Ban Rain 150m, 1 ex. (NHMW). **Vietnam**: Cho-Ganh, 1 paratype (UO); Tonkin, reg. de Hoa-Binh, 3 exx. (MNHN); Sud Vietnam, Bobla, 1 ex. (NSMT).

DISTRIBUTION

Cambodia, China (Yunnan), Hong Kong, India, Laos, Malaya, Vietnam, Thailand.

Macroscytus fraterculus HORVÁTH, bona sp.

(Figs 121-125)

Macroscytus japonensis, not of SCOTT: SCOTT 1874: 294 [paralectotype]; JOSIFOV & KERZHNER 1978: 189 [part].

Macroscytus fraterculus HORVÁTH, 1919: 241; WU 1935: 269; ESAKI 1959: 75; STICHEL 1962: 775 (erroneously syn. with *M. japonensis* by JOSIFOV & KERZHNER 1978: 189).

Macroscytus subaeneus, not of DALLAS [part]: HSIAO et al. 1979:46.

Macroscytus confusus J.A. LIS, 1995a: 163, **syn. n.**

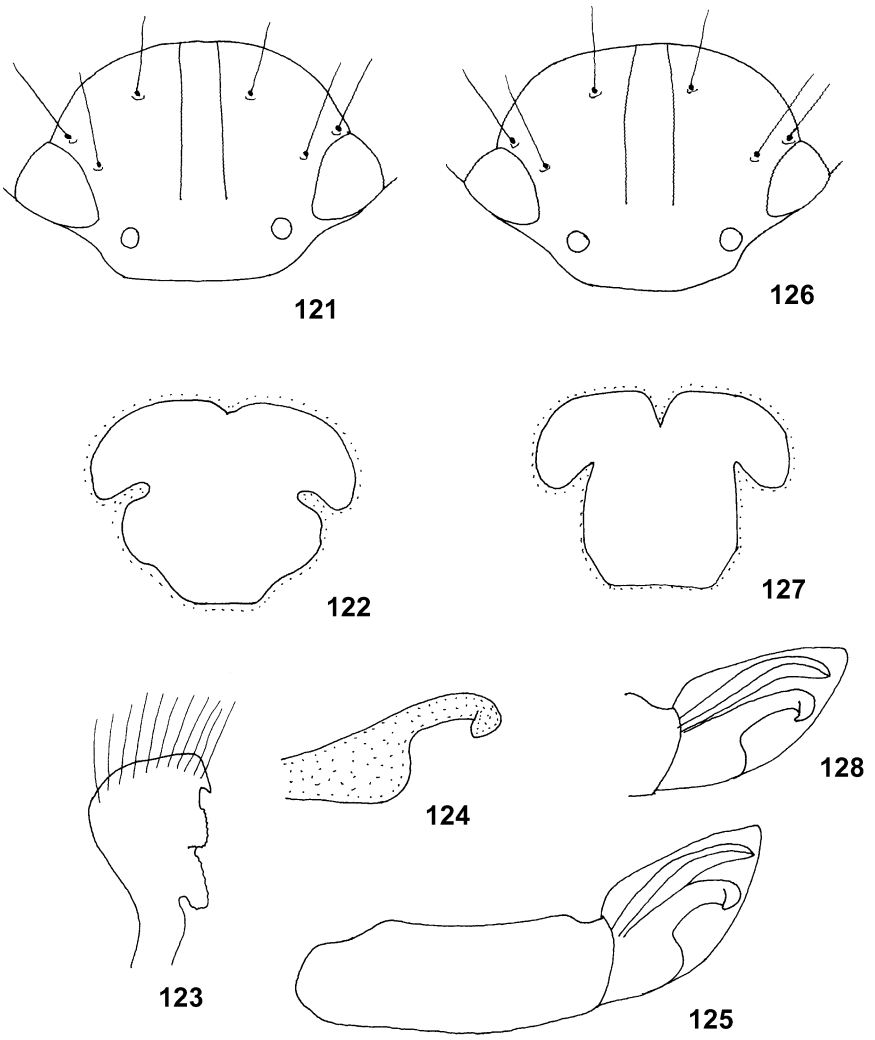
DESCRIPTION

Body 7.10-9.22 mm in length, 4.26-5.20 mm in width, castaneous to dark castaneous, sometimes almost black.

Head dorsally impunctate or almost impunctate; clypeus without subapical setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 121); ocular index 2.70-3.20; interocellar index 5.1-7.3; length of antennal segments (in mm): 0.34-0.42 : 0.38-0.52 : 0.47-0.60 : 0.55-0.71 : 0.61-0.76.

Pronotum without transverse discal impression behind calli; disc with an arcuate patch of punctures behind head, a broad band of many punctures behind the middle, and numerous punctures antero-laterally; lateral margins with 5-7 submarginal setigerous punctures. Propleural depression with punctures.

Scutellum densely punctate with exception of antero-lateral angles and extreme apex.



121-125. *Macroscytus fraterculus* HORV., 126-128. *Macroscytus japonensis* SCOTT: 121, 126 – head; 122, 127 – opening of male genital capsule; 123 – paramere; 124 - second conjunctival appendage in penis; 125 – penis; 128 – apical part of penis

Corium conspicuously punctate; clavus with one complete and two partial rows of punctures; mesocorial disc densely punctate; exocorium with weaker puncturation; costa narrow, separated from exocorium in its anterior fourth fifths, slightly convex, bearing 2 setigerous punctures.

Male hind femora with almost indistinct subbasal tooth on dorsal margin; male hind tibia with very small subbasal tubercle; female hind legs not modified.

Abdominal sterna wrinkled laterally, punctures present only behind and sometimes lateral to spiracles.

Male genitalia as in Figs 122-125.

TYPE DATA

Lectotype male (designated by JOSIFOV & KERZHNER, 1978: 189) of *Macroscytus fraterculus* HORVÁTH: China, Peking (HNHM).

Holotype male of *Macroscytus confusus* J.A. LIS: Japan, Honshu, Kanagawa pref., Hayama (ZMA).

MATERIAL EXAMINED

Lectotype of *Macroscytus fraterculus*, Holotype of *Macroscytus confusus*, 7 paratypes of *Macroscytus confusus*, and 6 other specimens: **China**: Fokien [Fujian], 3 paratypes (UO); Fukien, Shaowu, 1 ex. (BMH); Fukien, ChungAn, Bohea Hills, 3 exx. (BMH, UO); Peking [Beijing], 1 paratypes (UO). **Japan**: Honshu, Osaka, Rokkusan, 3 paratypes (UO); Kobe, 1 ex. (BMH); Hekinan, Gyõyõ-jinsha, Gyõ-yõ-chõ, Nishio city, Aichi Pref., 1 ex. (NSMT).

DISTRIBUTION

China (Fujian, Beijing), Japan.

Macroscytus fryeri DISTANT

(Figs 129-130)

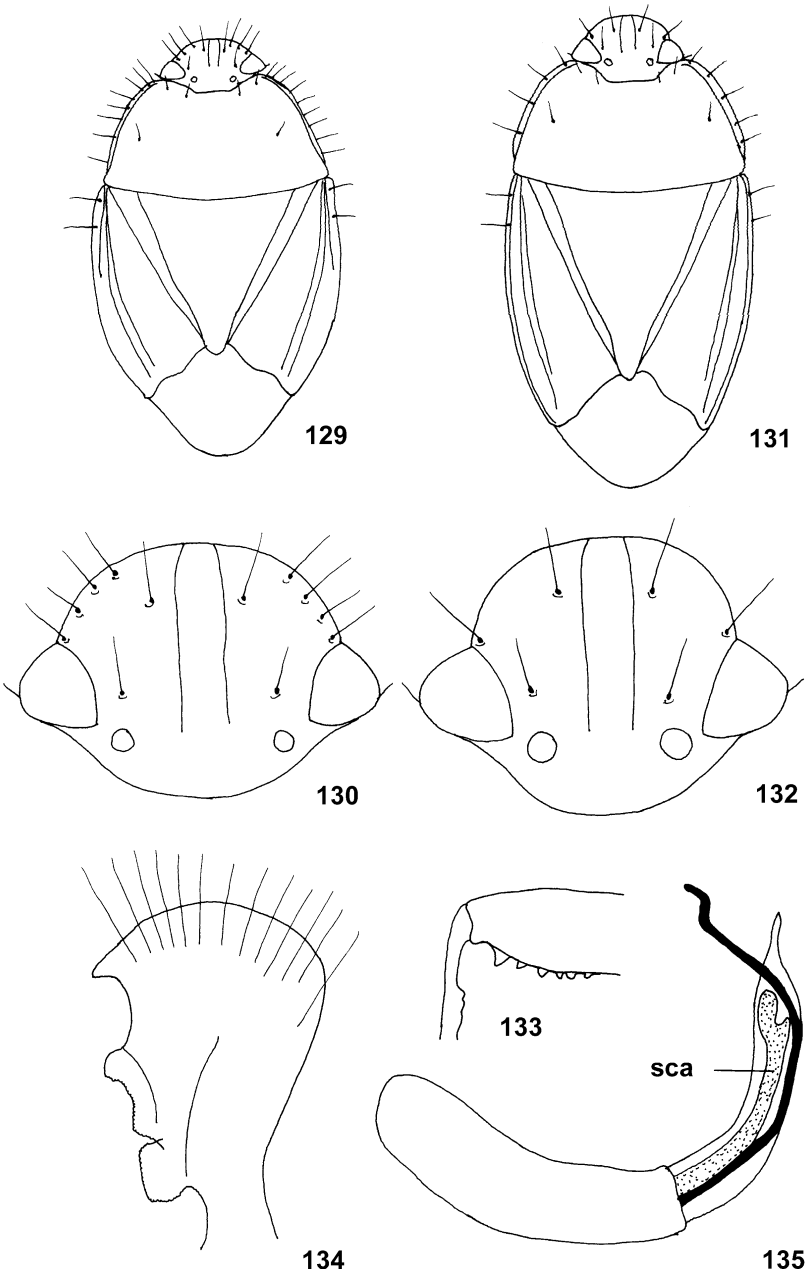
Macroscytus fryeri DISTANT, 1913: 140; LIS 1999d.

DESCRIPTION

Body 7.47-7.53 mm in length, 4.06-4.10 mm in width, from dark castaneous to blackish brown, posterior margins of umbones slightly lighter in shade, hemelytra yellowish brown or pale brown.

Head dorsally impunctate or with single small punctures on paraclypei; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with 3-4 setigerous punctures bearing long hair-like setae (Fig. 130); ocular index 2.35-2.65; interocellar index 7.4-8.7; length of antennal segments (in mm): 0.24-0.34 : 0.50-0.53 : 0.49-0.56 : 0.67 : 0.76.

Puncturation of pronotal disc weak, several punctures present behind calli and in the posterior half of disc, discal transverse impression absent; lateral



129-130. *Macroscytus fryeri* DIST., 131-135. *Macroscytus gibbulus* (ELLENR.): 129, 131 – body outline; 130, 132 – head; 133 - male posterior femur and base of tibia; 134 – paramere; 135 – penis

margins of pronotum with 6-9 submarginal setigerous punctures bearing long hair-like setae (Fig. 129). Anterior convexity of propleuron alutaceous, sparsely punctate with small punctures, posterior convexity distinctly punctate with punctures larger than those on anterior convexity, propleural depression coarsely punctate.

Scutellar disc with almost evenly spaced punctures as large as those on pronotum, basal fifth of scutellar disc impunctate.

Corium densely punctate; clavus with one complete and two incomplete rows of punctures; mesocorial disc densely and almost evenly punctate; exocorium densely punctate; costa flattened, separated from exocorium only in its basal half, costal margin with 2 setigerous punctures bearing hair-like setae (Fig. 129).

Female hind femora and tibiae without denticles and tubercles.

Abdominal sterna impunctate, except for rows of punctures close to segmental sutures, and patches of dense puncturation around trichobothria and spiracles.

TYPE DATA

Holotype (by monotypy): Seychelles Islands, Aldabra (BMNH).

MATERIAL EXAMINED

Holotype, and 1 other specimen: **Comoros**: Moheli, Lac Iconi, 1 female (MNHN).

DISTRIBUTION

Comoros (first record), Seychelles.

REMARK

Abdomen is missing in the holotype specimen, its sex was also not given in the original description.

Macroscytus gibbulus (ELLENRIEDER)

(Figs 131-135)

Hahnia gibbula ELLENRIEDER, 1862: 140; WALKER 1867: 170; STÅL 1876: 19; SIGNORET 1883a: 482; LETHIERRY & SEVERIN 1893: 71.
Macroscytus transversus, not of BURMEISTER: SIGNORET 1883a: 476 [part].
Macroscytus subaeneus, not of DALLAS: DISTANT 1901: 101 [part].
Macroscytus gibbulus: LIS 1994a: 221.
Macroscytus sumatranus J.A. LIS, 1994a: 228, 1996: 223, **syn. n.**

DESCRIPTION

Body 8.00-10.78 mm in length, 4.22-5.49 mm in width, from dark castaneous to almost black, corium and apical part of umbones usually more brownish than scutellum.

Head dorsally polished, impunctate, sometimes only slightly wrinkled in lateral parts of paraclypei; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous

puncture (Fig. 132); ocular index 1.85-2.45; interocellar index 6.0-11.0; length of antennal segments (in mm): 0.41-0.43 : 0.47-0.60 : 0.63-0.85 : 0.82-1.01 : 0.94-1.12.

Pronotum divided into two lobes by distinct transverse impression behind calli bearing numerous punctures; lateral margins with 4-5 submarginal setigerous punctures (Fig. 131). Propleuron with numerous punctures in depression and in basal part of posterior lobe.

Scutellum almost evenly punctate, its basal part and apex impunctate.

Corium almost evenly punctate with punctures smaller than those on scutellum; clavus with one complete and two partial rows of punctures; exocorium weakly punctate; costa narrow, almost entirely separated from exocorium, bearing 2 setigerous punctures (Fig. 131).

Male hind tibiae with small subbasal tubercles, hind femora with distinct subapical teeth (Fig. 133); female hind femora with very small, sometimes indistinct subapical tooth.

Abdominal sterna smooth, bearing more or less developed wrinkles, each segment laterally with a triangular patch of dense tiny punctures posterior to spiracles, sterna III and IV with very few tiny punctures also anterior to spiracle; sometimes lateral third of sterna with a few large clearly visible punctures.

Male genitalia as in Figs 134-135.

TYPE DATA

Syntype(s) of *Hahnia gibbula* ELLENRIEDER: Sumatra, Lahat (lost or destroyed). Neotype male (present designation) of *Hahnia gibbula* ELLENRIEDER: Sumatra, Bindjei-Medan (UO).

Holotype male of *Macroscytus sumatranus* LIS: Indonesia, Java, Banjoewangi (ZMA).

MATERIAL EXAMINED

Neotype of *Hahnia gibbula*, Holotype of *Macroscytus sumatranus*, 62 paratypes of *Macroscytus sumatranus*, and 1 other specimen: **Burma**: Katha, 2 paratypes (MCSN, ZIZM); Tenasserim, Thagata, 1 paratype (MCSN); Rangoon, 1 paratype (MNHN). **China**: Nauning, Kwangsi, 2 paratypes (NNML). **India**: Calcutta, 1 paratype (ZIZM); Gopaldhara, Darjeeling, 1 paratype (BMNH); Tenmalai, Travancore, 1 paratype (BMNH); Barodabri, 2 paratypes (ZIP, UO); Kalimpong, 1 paratype (ZIP). **Indonesia**: Buitenzorg, Java, 2 paratypes (ZIZM); Java, 1 paratype (NHMW); Sumatra, Tandigeng bij, Moeara Enim, 1 paratype (ZMA); Bengkalis, 1 paratype (MNHN); Timor, 1 paratype (ZMA); Tandjong Morawa, Serdang, NO Sumatra, 3 paratypes (NNML, UO); Gedanga, 2 paratypes (NNML); Palembang, 1 paratype (NNML); Timor, Oesusu, 1 ex. (NSMT). **Laos**: Luang Prabang, 2 paratypes (BMNH, MNHN); Vientian, 1 paratype (ZIP); Xieng Khouang, Ta Trang, 3 paratypes (BMNH, UO). **Malaysia**: Pahang, Taman Negara, 3 paratypes (BMNH, UO); Malaya, Kuala Lumpur, 1 paratype (BMNH); Malay

Penin., 4 paratypes (BMNH, UO); Malay Penin., West Coast, Langkawi Is., 1 paratype (BMNH); Borneo, E. Malaysia, Sepilok, Sabah, 2 paratypes (NSMT); N. Borneo, Sabah, 10km SE Ranau, 1 paratype (NNML); Malaysia, Sabah, Long Pa Sia, 1 paratype (NNML); Borneo, Sarawak, trail Pa Lungan - Long Rapun, 1 paratype (NNML). **Singapore**: 1 paratype (BMNH). **Thailand**: Thailand, 1 paratype (BMNH); Siam, 1 paratype (UO); Siam, Nan, 1 paratype (BMNH). **Vietnam**: Tonkin Centr., Region de Chim-Hoa et de Tuyen-Quan, 1 paratype (UO); Tonkin, Env. de Hanoi (Demange), 1 paratype (MNHN); Tonkin, reg. de Hoa-Binh, 5 paratypes (MNHN, UO); Saigon, 2 paratypes (MNHN); N-Vietnam, Cuc Phuong, 2 paratypes (NHMW); Annam, Phuc-Son, 3 paratypes (ZIZM).

DISTRIBUTION

Burma, China (Guangxi), India, Indonesia, Laos, Malaysia, Singapore, Thailand, Vietnam.

Macroscytus glaberrimus J.A. LIS

(Figs 136-142)

Macroscytus glaberrimus J.A. LIS, 1999a: 469.

DESCRIPTION

Body 8.30-8.88 mm in length, 4.75-5.01 mm in width, from blackish brown to black, umbones and posterior margin of pronotum dark castaneous, exocorium and basal part of mesocorium castaneous in shade.

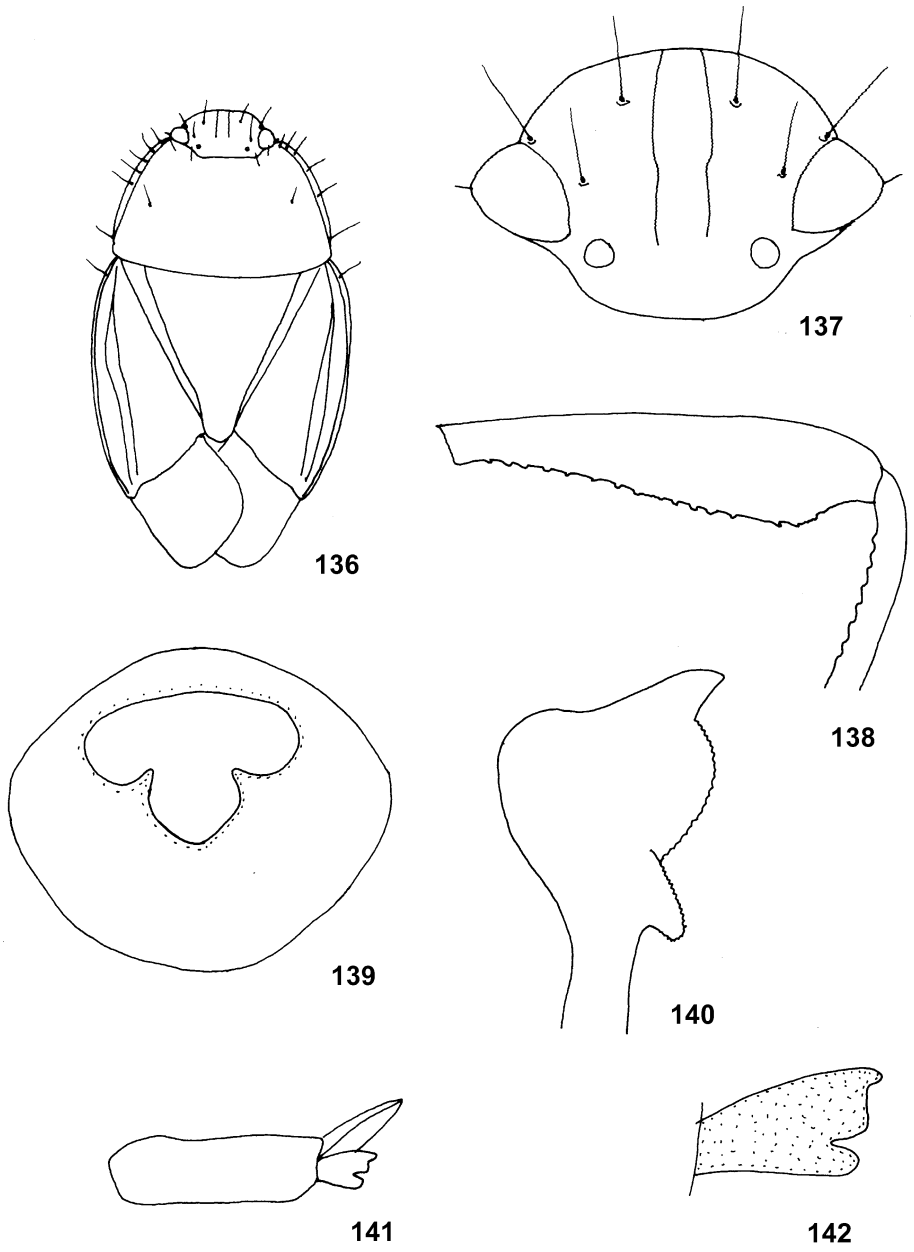
Head dorsally polished, almost smooth, bearing a few tiny and hardly visible punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 137); ocular index 2.00-2.15; interocellar index 8.6-9.7; length of antennal segments (in mm): 0.33-0.36 : 0.49-0.57 : 0.50-0.60 : 0.64-0.79 : 0.64-0.74.

Pronotal disc impunctate, or with a few irregularly scattered punctures; transverse discal impression behind calli absent; lateral margins of pronotum with 5-6 submarginal setigerous punctures bearing long hair-like setae (Fig. 136). Anterior convexity of propleuron punctate anteriorly and laterally, posterior convexity with a few irregularly scattered punctures, propleural depression with a broad band of coarse punctures.

Scutellum with irregular puncturation, punctures well visible in its median part.

Mesocorial disc densely and almost evenly punctate; exocorium densely punctate; costa narrow, almost entirely separated from exocorium, bearing a single setigerous puncture (Fig. 136).

Femora castaneous or dark castaneous, tibiae basally yellowish brown or brown, getting darker towards tarsi; the latter brown or pale brown; dorsal margin of male hind femur with numerous small denticles (Fig. 138); male hind tibia with a row of small denticles on its inner margin (Fig. 138); inner margins of female hind femur and tibia without denticles.



136-142. *Macroscytus glaberrimus* J.A. Lis: 136 - body outline; 137 - head; 138 - male posterior femur and base of tibia; 139 - male genital capsule, dorsal view; 140 - paramere; 141 - penis; 142 - second conjunctival appendage in penis

Abdominal sterna polished, punctate close to lateral margins, around trichobothria and posterior to spiracles.

Male genitalia as in Figs 139-142.

TYPE DATA

Holotype male: Australia, North Queensland, Mt. Misery Summit (QMB).

MATERIAL EXAMINED

Holotype, and 3 paratypes: **Australia**: Queensland, Mt. Boolbun South, 1 paratype (QMB); Queensland, Bellenden Ker Range, Cableway Base Stn., 1 paratype (UO); Queensland, Mt Blackwood, 1 paratype (QMB).

DISTRIBUTION

Australia.

Macroscytus heissi sp. n.

(Figs 143-149)

DESCRIPTION

H e a d. Black, lateral margins brownish in shade; dorsal surface alutaceous, bearing numerous tiny and hardly visible punctures, lateral parts of paraclypei striated and punctate with small punctures; gular plate coarsely punctate in its posterior half, anterior half impunctate; bucculae with a few punctures only; clypeus free, as long as paraclypei, subapically without setigerous punctures, each paraclypeus submarginally with 7-9 setigerous punctures bearing hair-like setae (Fig. 144); eyes dark reddish brown, ocular index 2.85; ocelli reddish brown, interocellar index about 4.5, ocellar index 7.0; antennae yellowish brown; rostrum pale brown, reaching middle of mesosternum.

P r o t h o r a x. Pronotum black, posterior and lateral margins castaneous in shade; puncturation of pronotal disc well visible behind head, in lateral parts and behind calli, transverse discal impression shallow, bearing a row of punctures (Fig. 143); lateral margins of pronotum with 10-11 setigerous punctures bearing long hair-like setae (Fig. 143). Prosternal carinae low, coarsely punctate; anterior convexity of propleuron with a patch of punctures close to head margin, posterior convexity punctate with a few coarse punctures, propleural depression with a row of several coarse punctures.

M e s o t h o r a x. Scutellum black, its apex castaneous; basal and apical parts of scutellar disc impunctate, remaining surface densely punctate with numerous punctures larger than those on pronotum (Fig. 143). Mesopleural evaporatorium with longitudinal rugae, its posterior wedge-shaped polished band impunctate.

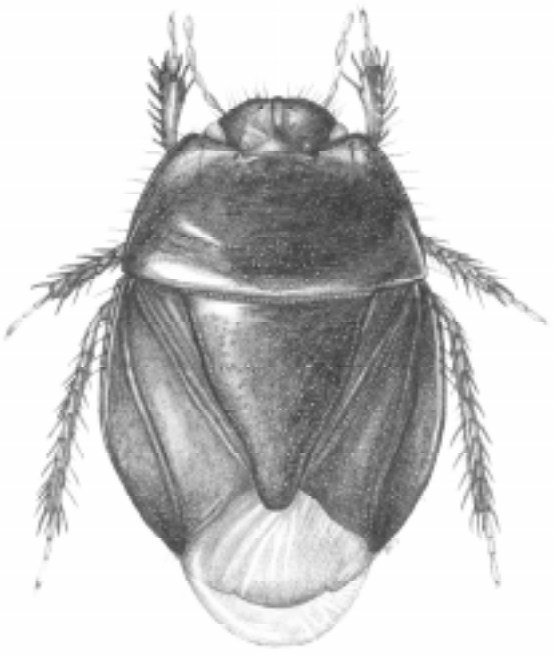
M e t a t h o r a x. Hemelytra dark castaneous, distinctly punctate; clavus with one complete and two partial rows of punctures; mesocorial disc almost evenly punctate, punctures slightly smaller than those on scutellum; exocorium with

puncturation more dense than those of mesocorium; mesocorium and exocorium separated almost along their entire length; costa basally broad, almost entirely separated from exocorium, costal margin with 6 setigerous punctures bearing long hair-like setae (Fig. 143); membranal suture almost straight; membrane semihyaline, milky brown, its tip clearly surpassing the posterior extremity of abdomen. Metapleural evaporatorium without longitudinal rugae; lateral area of metapleuron impunctate, posterior area with a band of coarse punctures.

L e g s. Femora and tibiae dark castaneous, tarsi yellowish brown; dorsal margin of mid femur with a row of 10-11 sharp black teeth; hind femur basally with a row of tubercles bearing long setae, subapical denticles and teeth absent; hind tibia subbasally with large tooth (Fig. 147).

A b d o m e n. Sterna blackish brown, laterally distinctly striated and coarsely punctate, segmental sutures accompanied by rows of punctures. Ventral surface of male pygophore with small punctures, dorsal surface pilose, longitudinal sclerites on infolding of its dorsal rim well developed; penis as in Fig. 148, second conjunctival appendage as in Fig. 149, paramere as in Fig. 146, opening of genital capsule as in Fig. 145.

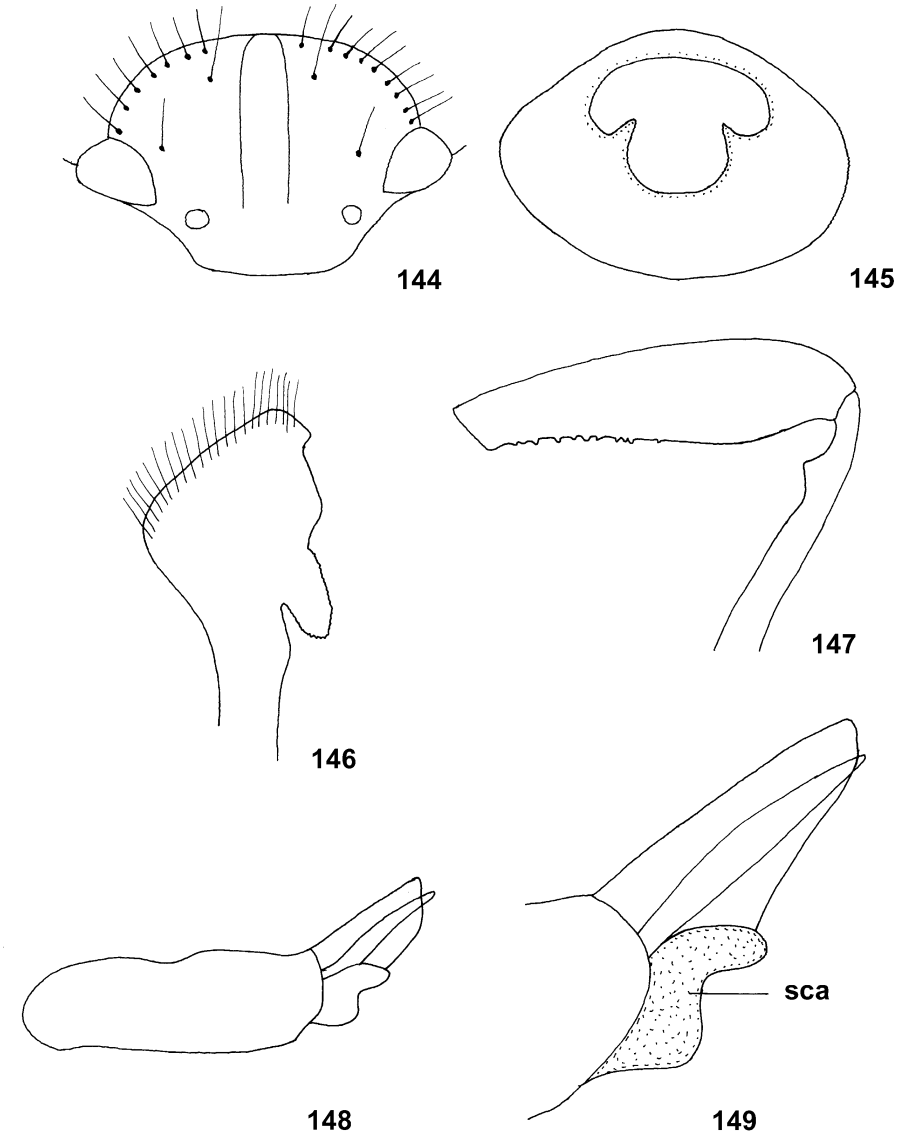
M e a s u r e m e n t s (in mm). Male only: body length 7.32; body width 4.45; head length 1.21; head width 1.92; pronotum length 2.34; pronotum width 4.12; scutellum length 2.83; scutellum width 2.77; antennal segments: 0.35 : 0.47 : 0.36 : 0.44 : 0.47.



143. *Macroscytus heissi* sp. n., dorsal habitus

TYPE MATERIAL EXAMINED

Holotype male: **Kenya**: N-Kenia, Umg. Nairobi, VII 1981, HEISS, collection E. HEISS, Innsbruck (TLM).



144-149. *Macroscytus heissi* sp. n.: 144 - head; 145 - male genital capsule, dorsal view; 146 - paramere; 147 - male posterior femur and base of tibia; 148 - penis; 149 - apical part of penis (sca – second conjunctival appendage)

COMPARATIVE NOTES

This new Afrotropical species is very similar to Oriental *M. nigroaeneus* and Australian *M. piceus*, especially in its general body outline, its vestiture and puncturation. Nevertheless, it can easily be separated from the two species by characters given in the key.

DISTRIBUTION

Kenya.

Macroscytus honiarensis J.A. LIS

(Figs 150-156)

Macroscytus honiarensis J.A. LIS, 1993a: 16, 1995b: 145, 1996: 222.

DESCRIPTION

Body 7.95-8.67 mm in length, 4.16-5.10 mm in width, from dark castaneous to black brown; umbones and posterior margin of pronotum with narrow yellowish brown transverse band; exocorium, clavus and basal part of mesocorium yellow or yellowish brown, the remaining part of mesocorium castaneous or dark castaneous.

Head dorsally polished, sometimes slightly wrinkled and with several small punctures laterally; clypeus without subapical pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 151); ocular index 2.30-2.60; interocellar index 4.9-6.3; length of antennal segments (in mm); 0.32-0.40 : 0.42-0.46 : 0.58-0.66 : 0.70-0.81 : 0.84-0.94.

Pronotum without transverse discal impression behind calli, pronotal disc with several scattered punctures; lateral margins with 5-6 submarginal setigerous punctures (Fig. 150). Propleuron with numerous distinct punctures.

Scutellum with several punctures in the middle of its disc.

Clavus with one complete and two partial rows of punctures; mesocorium in its basal third punctate with large punctures, remaining two thirds with smaller punctures; exocorium with puncturation denser than that of mesocorium; costa narrow, almost entirely separated from exocorium, costal margin without (Fig. 150) or very rarely with a single setigerous puncture.

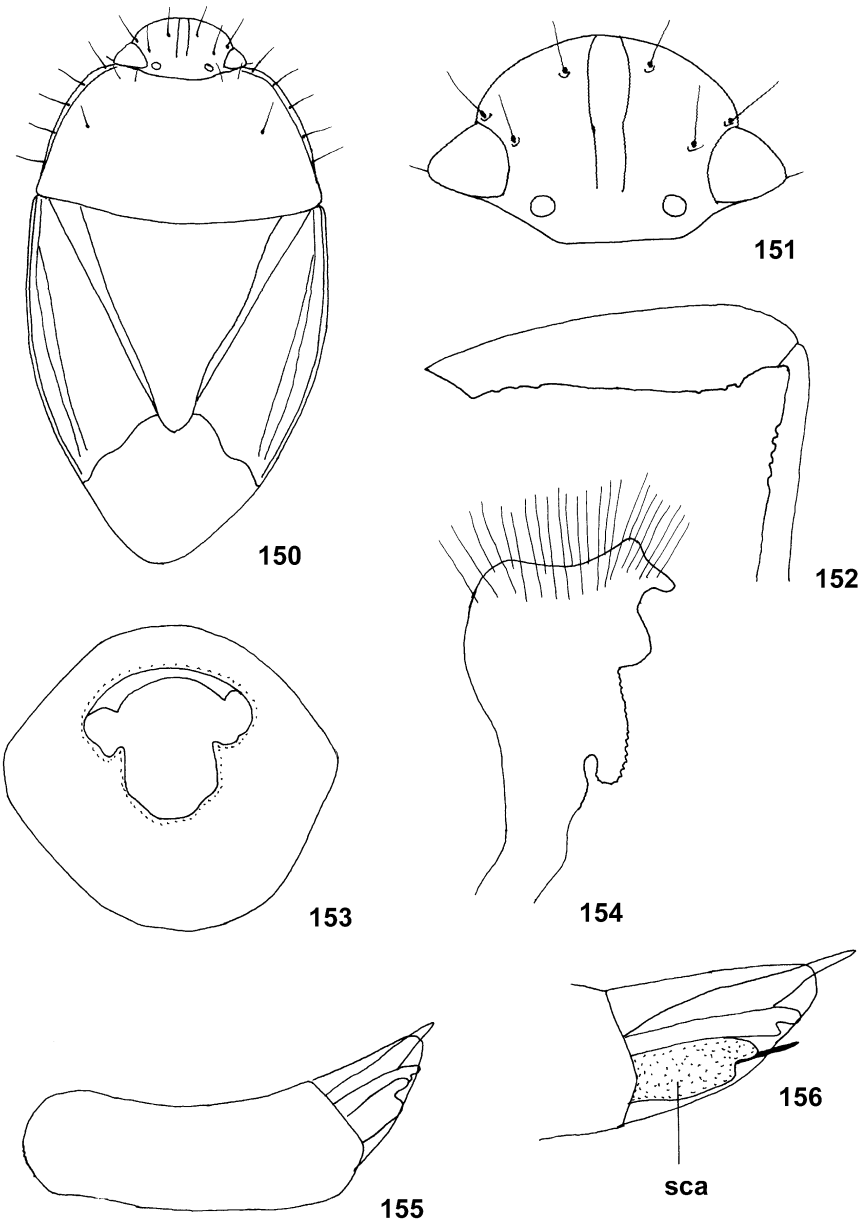
Femur from yellowish brown to yellow, bearing dark median stripe; male hind femora with small, sometimes indistinct, subapical spines (Fig. 152); male hind tibia with a few small denticles (Fig. 152).

Abdominal sterna glossy, each with a triangular patch of dense fine punctures posterior to spiracle; areas anterior to and mesad of spiracles with a few punctures; lateral parts of segments additionally irregularly wrinkled.

Male genitalia as in Figs 153-156.

TYPE DATA

Holotype male: Solomon Islands, Guadalcanal I., Honiara (BMNH).



150-156. *Macroscytus honiarensis* J.A. Lis: 150 - body outline; 151 - head; 152 - male posterior femur and base of tibia; 153 - male genital capsule, dorsal view; 154 - paramere; 155 - penis; 156 - apical part of penis (sca – second conjunctival appendage)

MATERIAL EXAMINED

Holotype, 4 paratypes, and 4 other specimens: **Bismarck Archipelago**: New Britain, Volupai, 1 ex. (BMH). **Solomon Islands**: Guadalcanal I., Honiara, 1 paratype (BMNH); Tulagi, 2 paratypes (BMNH, UO); Guadalcanal, en route Gallego camp, 1 paratype (BMNH); Bougainville, Kukugai Vill., 3 exx. (BMH, UO).

DISTRIBUTION

New Britain (first record), Solomon Islands.

Macroscytus howei J.A. LIS

(Figs 157-163)

Macroscytus howei J.A. LIS, 1997a: 28, 1999a: 471.

DESCRIPTION

Body 7.62-8.42 mm in length, 4.60-5.21 mm in width, from dark castaneous to black, apices of umbones and the posterior margin of pronotum narrowly yellowish brown (in dark castaneous specimens only the apices of umbones are slightly brightened), hemelytra usually more brownish in shade than pronotum and scutellum.

Head dorsally impunctate; clypeus subapically without setigerous punctures, each paraclypeus with a row of 3-6 submarginal setigerous punctures bearing long hair-like setae (Fig. 158); ocular index 2.00-2.60; interocellar index 5.0-6.0; length of antennal segments (in mm): 0.29-0.32 : 0.42-0.56 : 0.49-0.58 : 0.60-0.66 : 0.62-0.72.

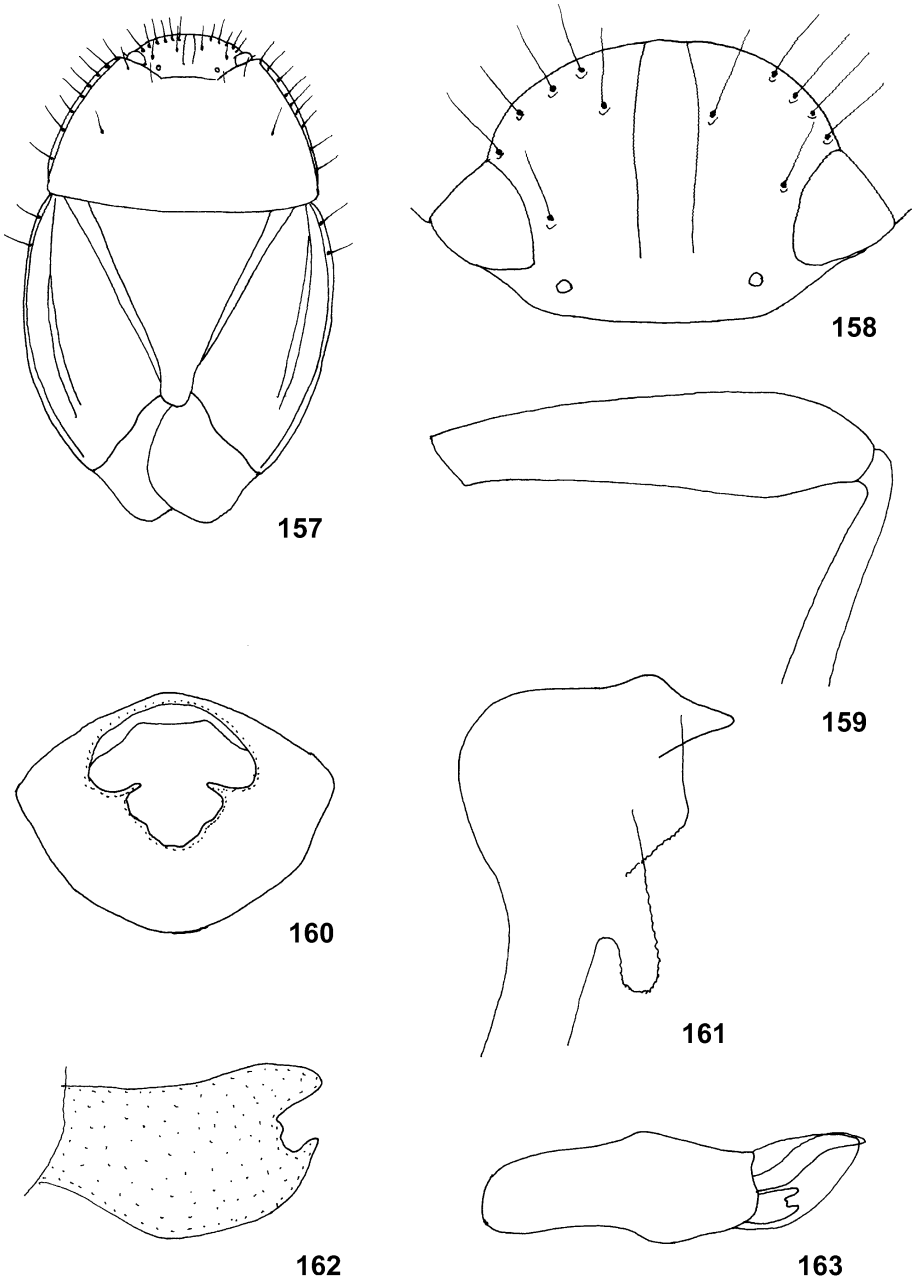
Pronotal disc with a few small, hardly visible punctures; posterior half of pronotal disc with tiny and almost invisible transverse wrinkles; lateral margins with 7-10 submarginal setigerous punctures bearing long hair-like setae (Fig. 157). Propleural depression with a row of coarse punctures, anterior and posterior convexities of propleuron with few small punctures.

Scutellar disc with small, almost invisible punctures, and a few tiny transverse wrinkles.

Corium with numerous irregular wrinkles, at first sight looking almost impunctate; mesocorial disc entirely impunctate or sparsely punctate in its posterior half; exocorium broad, expanded laterally, impunctate; costa narrow, flat, almost entirely separated from exocorium, its posterior fifth fused with the latter, costal margin with 2-4 setigerous punctures bearing long hair-like setae (Fig. 157).

Femora dark brown or brown, tibiae usually paler than femora; male and female hind femora simple, spines and teeth absent (Fig. 159); male and female tibiae without denticles on inner margins (Fig. 159).

Abdominal sterna almost impunctate, bearing only rows of small punctures close to segmental sutures, and triangular patches of well visible punctures posterior to spiracles.



157-163. *Macroscytus howei* J.A. Lis: 157 - body outline; 158 - head; 159 - male posterior femur and base of tibia; 160 - male genital capsule, dorsal view; 161 - paramere; 162 - second conjunctival appendage in penis; 163 - penis

Male genitalia as in Figs 160-163.

TYPE DATA

Holotype male: Australia, Lord Howe Island, the Clear Place (QMB).

MATERIAL EXAMINED

Holotype, and 4 paratypes: **Lord Howe Island**: Stevens Reserve, 1 paratype (QMB); The Clear Place, 1 paratype (QMB); Lorhiti Lodge, 1 paratype (QMB); Base of Mt Eliza, 1 paratype (UO).

DISTRIBUTION

Lord Howe Island.

Macroscytus insularis sp. n.

(Figs 164-170)

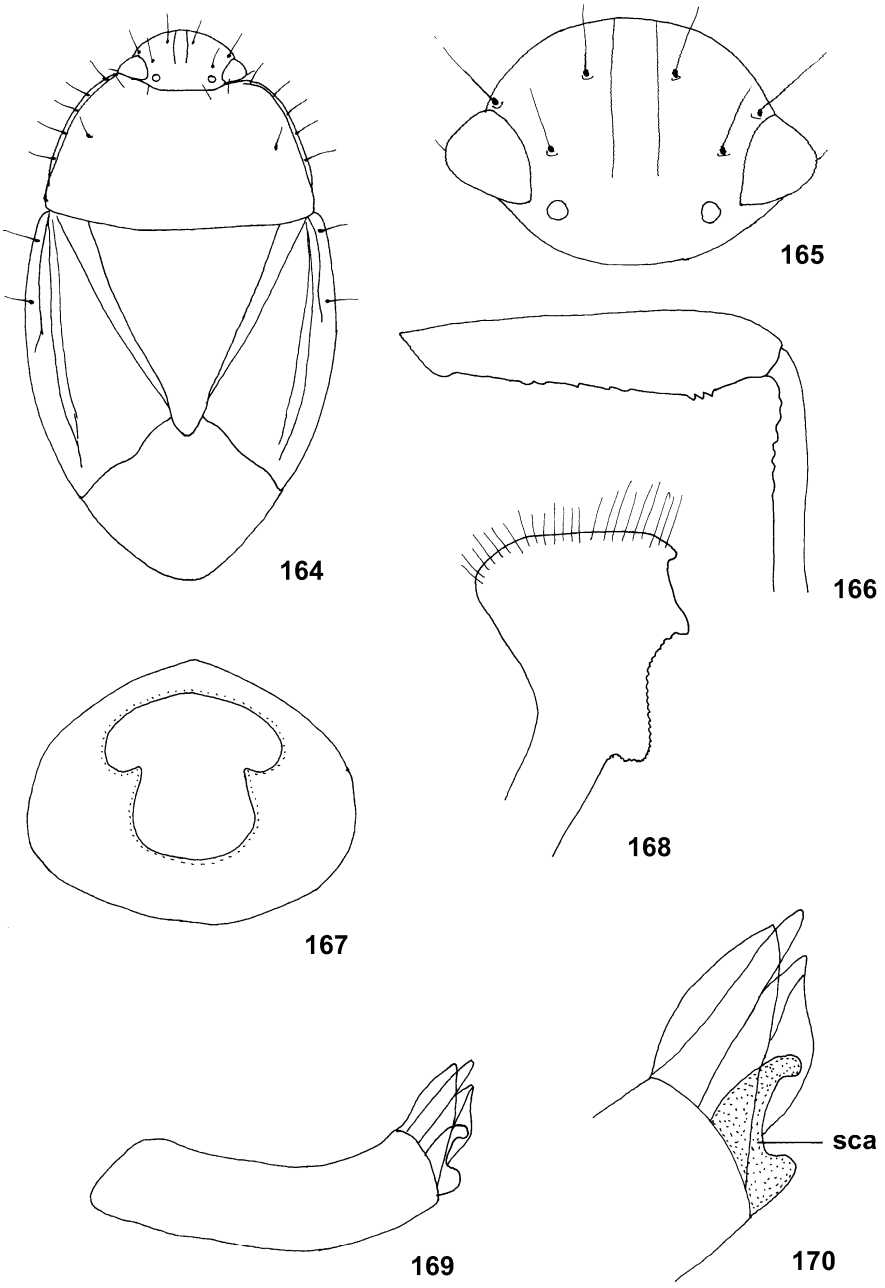
DESCRIPTION

H e a d. Castaneous, lateral parts of paraclypei somewhat darker in shade; dorsal surface alutaceous, impunctate, bearing only a few punctures laterally; gular plate almost entirely coarsely punctate, except for its anterior fifth; buccu-lae entirely coarsely punctate; clypeus free, as long as paraclypei, subapically without setigerous punctures, each paraclypeus submarginally with two setiger-ous punctures bearing hair-like setae (Fig. 165); eyes dark brown, ocular index 2.40; ocelli reddish brown, distance between ocelli about 7.5 times longer than the distance between ocellus and eye, ocellar index 6.0; antennae pale brown; rostrum yellowish brown, reaching mid coxae.

P r o t h o r a x. Pronotum castaneous; pronotal disc with a row of small punctures behind head, and a band of large punctures behind calli, the latter impunctate and elevated; transverse discal impression deep, well developed, bearing row of coarse punctures interrupted medially; lateral margins of prono-tum with 5 submarginal setigerous punctures bearing long hair-like setae (Fig. 164). Prosternal carinae low, punctate; anterior convexity of propleuron almost entirely punctate with numerous small punctures, posterior convexity of propleuron punctate with large coarse punctures, propleural depression with a band of coarse punctures.

M e s o t h o r a x. Scutellum castaneous, basal fourth of its disc and scutellar apex impunctate, its remaining surface punctate with numerous punctures larger than those on pronotum. Mesopleural evaporatorium with distinct longitudinal rugae, its posterior wedge-shaped polished band with over a dozen large punc-tures.

M e t a t h o r a x. Hemelytra castaneous, puncturation colourless; clavus with one complete and two incomplete rows of punctures; mesocorial disc almost evenly punctate, punctures smaller than those on scutellum; puncturation of



164-170. *Macroscytus insularis* sp. n.: 164 - body outline; 165 - head; 166 - male posterior femur and base of tibia; 167 - male genital capsule, dorsal view; 168 - paramere; 169 - penis; 170 - apical part of penis (sca – second conjunctival appendage)

exocorium dense; mesocorium and exocorium separated almost along their entire length; costa broad, flattened, separated from exocorium only in its basal half, costal margin with two setigerous punctures bearing long hair-like setae (Fig. 164); membranal suture almost straight; membrane semihyaline, somewhat embrowned, its tip slightly surpassing the posterior extremity of abdomen. Metapleural evaporatorium with longitudinal rugae; lateral area of metapleuron impunctate, except for a band of punctures close to evaporatorium margin, posterior area with a band of coarse punctures.

L e g s. Femora and tibiae castaneous, tarsi pale brown; ventral margin of hind femur with a few denticles, dorsal margin with 2-3 subapical small teeth (Fig. 166); hind tibia with several small tubercles (Fig. 166).

A b d o m e n. Sterna castaneous, distinctly punctate in lateral two thirds, punctures around spiracles and trichobothria clearly smaller than remaining ones. Ventral surface of male pygophore impunctate, its dorsal surface pilose, longitudinal sclerites on infolding of its dorsal rim well developed; penis as in Fig. 169, second conjunctival appendages as in Fig. 170, paramere as in Fig. 168, opening of genital capsule as in Fig. 167.

M e a s u r e m e n t s (in mm). Male only: body length 7.92; body width 4.55; head length 1.35; head width 1.99; pronotum length 2.02; pronotum width 4.02; scutellum length 2.95; scutellum width 2.61; antennal segments: 0.35 : 0.56 : 0.57 : 0.75, 5th segment missing.

TYPE MATERIAL EXAMINED

Holotype male: **Comoros**: Moroni, G^{de} Comore, Malet, Coll. E. Fleutiaux, 1919, Muséum Paris (MNHN).

COMPARATIVE NOTES

The new species is similar to *M. fryeri*, *M. mayottensis* and *M. comorensis*, but it can easily be distinguished from all of them by deep and well developed transverse impression on its pronotal disc (transverse impression is shallow or absent in the other three species), and by its almost entirely punctate gular plate of head (it is punctate only in posterior half or third in the other three species).

DISTRIBUTION

Comoros.

Macroscytus japonensis SCOTT

(Figs 126-128)

Aethus foveolus, not of DALLAS: WALKER 1867: 157 [part].

Aethus aequalis, not of WALKER: WALKER 1867: 159 [syntype from Japan]; LETHIERRY & SEVERIN 1893: 81 [part]; JOSIFOV & KERZHNER 1978: 189 [part].

Aethus badius, not of WALKER: WALKER 1867: 159 [syntype from North China].

Macroscytus japonensis SCOTT, 1874: 289 [name only], 294.

Macroscytus javanus, not of MAYR: SIGNORET 1881: 646 [part], 1883a: 478 [part]; LETHIERRY & SEVERIN, 1893: 71 [part].

Macroscytus niponensis SIGNORET, 1883a: 475 (syn. by HORVÁTH 1919: 241).
Macroscytus subaeneus, not of DALLAS: HORVÁTH 1901: 248; OSHANIN 1906: 12 [part], 1910: 4, 1912: 2; WU 1935: 269; ESAKI & ISHIHARA 1951: 29; TAKARA & HIDAKA 1960: 182; STICHEL 1962: 775 [part]; SIENKIEWICZ 1964: 137 [part]; HSIAO et al. 1977: 46 [part]; TOMOKUNI 1979: 104, 1981: 104, 1985: 154; ZHANG & LIN 1992: 108.
Macroscytus badius, not of DALLAS: MOIZUDDIN & AHMAD 1990: 325 [part].
Macroscyrtus [sic!] *subaenus* [sic!]: LIN & ZHANG 1992: 218.

DESCRIPTION

Body 8.10-10.5 mm in length, 4.65-6.00 mm in width, from castaneous to almost black, umbones and posterior margin of pronotum sometimes slightly paler than the disc.

Head almost impunctate, bearing tiny punctures, lateral parts sometimes wrinkled and with a few punctures; clypeus without a subapical pair of hair-like setae, each paraclypeus submarginally with a single preocular setigerous puncture bearing hair-like seta (Fig. 126); ocular index 1.98-3.00; interocellar index 5.5-9.1; length of antennal segments (in mm): 0.29-0.46 : 0.43-0.63 : 0.51-0.69 : 0.69-0.88 : 0.72-0.94.

Pronotum with transverse impression behind calli absent or only slightly marked on either side and interrupted medially; pronotal disc with punctures behind head, in lateral parts and behind calli; lateral margins with 5-6 submarginal setigerous punctures. Anterior convexity of propleuron moderately punctate, posterior convexity with large punctures, propleural depression with a row of coarse punctures.

Scutellum evenly punctate, punctures slightly larger than those on pronotum, apex and basal part impunctate.

Clavus with one complete and two or three partial rows of punctures; exocorium and middle part of mesocorium almost evenly densely punctate, punctures smaller than those on scutellum; costa almost entirely separated from exocorium, bearing 2 setigerous punctures.

Male hind tibiae slightly carinate, and subbasally with distinct small tubercles, hind femora with several small teeth on ventral margin and one subapical tooth on the dorsal; female hind femora without teeth, hind tibiae without tubercles.

Abdominal sterna with punctures forming patches posterior to spiracles, sutures and surface laterally of spiracles with a few punctures.

Male genitalia as in Figs 127-128.

TYPE DATA

Lectotype female (designated by LIS, 1994a: 222) of *Macroscytus japonensis* SCOTT: Japan (BMNH).

Lectotype female (designated by LIS, 1994a: 222) of *Macroscytus niponensis* SIGNORET: Japan (NNML).

MATERIAL EXAMINED

Lectotype of *Macroscytus japonensis*, Lectotype of *Macroscytus niponensis*, and 57 other specimens: **Burma**: North Burma, Adung Valley, 1 ex. (BMNH). **China**: North China, 1 ex. (BMNH); Gan Chouen Fou, Anshunfu, 2 exx. (MNHN, UO); Peking, 3 exx. (MNHU); Kiautschou, Tsingtau, 1 ex. (MNHU); Chekiang, Hangtcheou [=Hangzhou], 1 ex. (MNHN); Chen-Si, 3 exx. (MNHN, UO); Chenfu-Wu, 1 ex. (BMNH); Shanghai, 2 exx. (NNML); Sichuan, Ulian, Utschan-Tschou, 1 ex. (ZIP); Kouy-Tcheou, Kouy Yang, 1 ex. (MNHN); Central China, 1 ex. (NNML); Kansu, Chengshien, 1 ex. (NNML); Nanning Kwangtung, 1 ex. (NNML); 35km NW Peking, Fragrant Hills, 1 ex. (NHMW); Taiwan, 1 ex. (BMNH); Taiwan, Taihanroku, 1 ex. (BMNH); Taiwan, Teraso, 3 exx. (HNHM); Taiwan, Kaohsiung, Shanping, 1 ex. (CMNH). **Japan**: 1 ex. (BMNH); 2 exx. (MNHU); Honshu, Miura, Kanagawa, 3 exx. (NSMT, UO); Ryukyus, Funaura, Iriomote I., 3 exx. (NSMT, UO); Shikoku, Mt. Nakatsuno-mine Tokushima, 4 exx. (NSMT, UO). **Korea**: East Korea, Prov. Kanwan, Kum-gang-son, 4 exx. (HNHM, UO); Sarivon, 1 ex. (HNHM); South Korea, Song Panaku, Halla San, Cheju Do Is., 2 exx. (NSMT). **Vietnam**: Tonkin Centr., Env. de Yen-Bai, 1 ex. (MNHN); Tonkin, Reg. de Yen-Bay, 1 ex. (MNHN); Tonkin, Hoa-Binh, 1 ex. (MNHN); Haut-Tonkin, Lao-Kay, 1 ex. (MNHN); Pr. Annam, Than Hoa, 1 ex. (IRSNB); Tonkin, Phu Lang Huong, 1 ex. (MNHN); Hanoi, 4 exx. (NhMW, BMNH, UO).

DISTRIBUTION

Burma (north), Korea, Japan, China (Beijing, Fujian, Gansu, Guangdong, Guizhou, Henan, Hubei, Hunan, Shandong, Shanghai, Shanxi, Sichuan, Taiwan, Zhejiang), Russia (Far East), Vietnam (north).

Macroscytus javanus MAYR

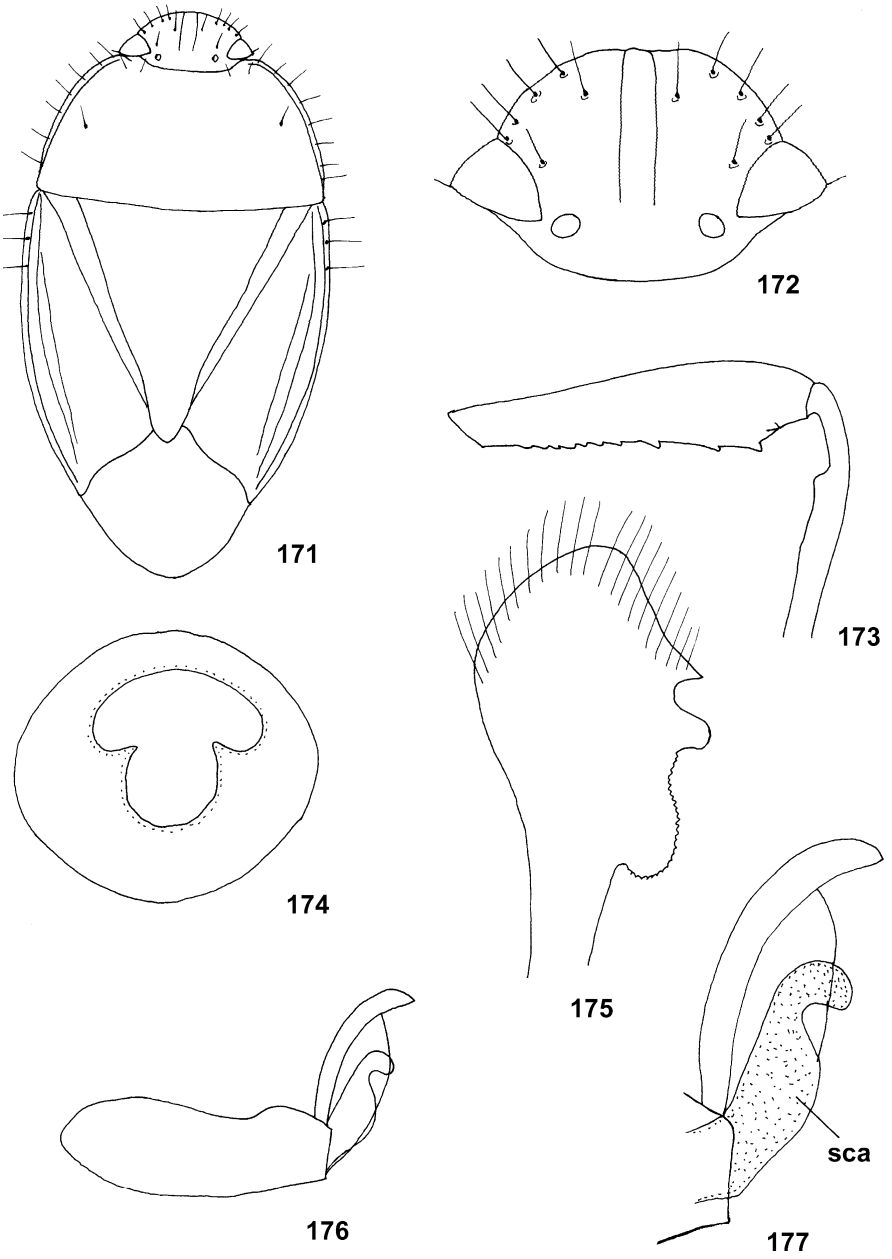
(Figs 171-177)

Macroscytus javanus MAYR, 1866: 361 [1868: 8].
Macroscytus japonensis, not of SCOTT: SIGNORET 1881: 646 [part].
Macroscytus subaeneus, not of DALLAS: DISTANT 1899: 222 [part]; SCHOUTEDEN 1933: 44; JOSIFOV & KERZHNER 1978: 187 & 188.
Macroscytus subaeneus, not of DALLAS: DISTANT 1902: 96 [part].

DESCRIPTION

Body 7.30-9.15 mm in length, 3.85-5.01 mm in width, from castaneous to blackish brown, corium usually slightly paler than pronotum and scutellum, posterior margin of pronotum sometimes light brown or yellowish brown.

Head dorsally impunctate, or with a few tiny punctures, slightly wrinkled in lateral parts of paraclypei; clypeus without subapical setigerous punctures, each paraclypeus with 3-4 submarginal setigerous punctures (Fig. 172); ocular index 2.00-2.40; interocellar index 7.5-11.5; length of antennal segments (in mm): 0.33-0.42 : 0.38-0.49 : 0.56-0.63 : 0.65-0.81 : 0.72-0.85.



171-177. *Macroscytus javanus* MAYR: 171 - body outline; 172 - head; 173 - male posterior femur and base of tibia; 174 - male genital capsule, dorsal view; 175 - paramere; 176 - penis; 177 - apical part of penis (sca – second conjunctival appendage)

Pronotum without or sometimes with slightly developed transverse impression behind calli; pronotal disc with dense puncturation laterally and behind impunctate calli; lateral margins with 5-8 submarginal setigerous punctures (Fig. 171). Anterior convexity of propleuron with numerous small punctures, posterior convexity with large punctures, propleural depression coarsely punctate.

Scutellum densely punctate, with exception of anterolateral angles and apex.

Corium distinctly punctate; clavus with one complete and two partial rows of punctures, basal part sometimes with a patch of small punctures; mesocorial disc with distinctly separated punctures smaller than those on scutellum; costa moderately convex, almost entirely separated from exocorium, bearing 2-3 (rarely 4) setigerous punctures (Fig. 171).

Male hind femora with a distinct subapical tooth on dorsal margin, and a few smaller teeth on the ventral (Fig. 173); male hind tibiae carinate and with distinct subbasal triangular tubercle (Fig. 173); female hind femora with subapical tooth on dorsal margin, female hind tibiae without subbasal tubercle.

Abdominal sterna III and IV with small punctures anterior and posterior to spiracles, sterna V-VII with punctures posterior to spiracles only; single small punctures sometimes present also laterally to spiracles.

Male genitalia as in Figs 174-177.

TYPE DATA

Lectotype male (designated by LIS, 1994a: 240): Indonesia, Java (NHMW).

MATERIAL EXAMINED

Lectotype, and 94 other specimens: **Indonesia**: Sumatra, 1 ex. (NNML); Tandjong Morawa, Serdang, N.O. Sumatra, 1 ex. (NNML); Sumatra, Fort de Kock, 2 exx. (NNML); Sumatra, Labuan, 2 exx. (ZMHU); Sumatra, Medan, Doloc Baroe, 1 ex. (IRSNB); Sumatra, Bindjel-Medan, 4 exx. (ZMA, UO); Sumatra, Palembang, 3 exx. (ZMA, NNML); Sumatra, Padang, 4 exx. (ZMA, MNHN, NNML); Indrapura-Estate, Sumatra, 1 ex. (ZIZM); Sumatra, Dolok Merangir, 7 exx. (NNML, AMNH, UO); Sumatra, Lahat, 5 exx. (NNML); Sumatra, Malakoni, Insel Engano, 2 exx., (ZIZM); Java, 15 exx. (ZMHU, MNHN, HNHM, NNML); Java, Malang, 1 ex. (NNML); Java, Batavia, 1 ex. (MNHN); Java, Soekaboemi, 2 exx. (NNML); Java, Wellri Plellen, Siloewok Sawangan, 4 exx. (ZMA, UO); Java, Banjoewangi, 4 exx. (ZMA, ZIP, UO); Java, Ardja-Sari, Preanger, 1 ex. (ZMA); Java, Slawi Tegal, 1 ex. (ZMA); Java, Soerabaya, 7 ex. (ZMA, NNML); Java, Djakjarta, 1 ex. (ZMA); Java, Buitenzorg, 2 exx. (ZMA, NNML); Java, Mons Gede, 1 ex. (MNHN); Java, Mts Kawie, 1 ex. (ZIP); Java, Surabaja, 1 ex. (ZIP); Java, Blavan, Bondowoso, 1 ex. (ZIP); Java, Blawan, Indjen-Plateau, 2 exx. (ZIP, UO); Java, Bogor, 3 exx. (BMNH, NNML); Java, Temangoeng, 1 ex. (ZMA); Java, Garoet, Preanger, 2 exx. (NNML); Java, Lembang, 1 ex. (JEC); Celebes, Minahassa, Tomohon, 1 ex. (UO); S. Lombok,

Ekas, 1 ex. (MNHU); O. Soembawa, Dompoe, 1 ex. (MNHU); Adonara, Solor lsl., 1 ex. (BMNH). **Malaysia**: Malay Peninsula, Kuala Lumpur, 3 exx. (BMNH, UO). **Singapore**: Singapore, 1 ex. (ZIZM). **Thailand**: Thailand, Khao Sok National Park, Phanom Surat Thani, 1 ex. (NSMT).

DISTRIBUTION

Indonesia (Sumatra, Java, Lombok – first record, Engano, Solor, Sumbawa – first record, Sulawesi – first record), Malaysia (Malaya), Singapore, Thailand (first record).

Records from China and Japan (SIGNORET, 1881, 1883a) related to *M. japonensis* (see LIS, 1994a).

Macroscytus lansburyi J.A. LIS

(Figs 178-181)

Macroscytus lansburyi J.A. LIS, 1994b: 323, 1995b: 145, 1996: 222.

DESCRIPTION

Body 7.98-8.02 mm in length, 4.52-4.67 mm in width, blackish brown; umbones and extreme posterior margin of pronotum yellowish brown; corium brown, clearly paler than pronotum and scutellum.

Head dorsally with very small, almost invisible punctures and several rugae; clypeus subapically without setigerous punctures, each paraclypeus with two submarginal setigerous punctures (Fig. 178); ocular index 2.51-2.55; interocellar index 3.0-5.0; length of antennal segments (in mm): 0.35-0.42 : 0.49-0.52 : 0.50-0.53 : 0.63-0.74 : 0.84-0.92.

Pronotum undivided into lobes; calli and the posterior quarter impunctate, remaining surface sparsely punctate with clearly visible punctures; lateral margins with 4 submarginal setigerous punctures bearing long hair-like setae (Fig. 179). Apical part of anterior convexity of propleuron dulled by numerous small punctures; depression and basal part of posterior convexity with large coarse punctures.

Scutellar disc weakly punctate, bearing a median patch of few punctures (Fig. 179).

Clavus with two rows of punctures (one complete, one partial); mesocorial disc evenly moderately punctate; exocorium with very dense puncturation; costa narrow, moderately convex, entirely separated from exocorium, costal margin without setigerous punctures.

Legs yellowish brown or pale brown, femora with broad median dark stripe, apical half of anterior tibiae dark; dorsal margins of hind femora with several small teeth.

Abdominal sterna medially smooth, lateral parts of each segment with a triangular patch of small punctures posterior to spiracle.

Male genitalia as in Figs 180-181.

TYPE DATA

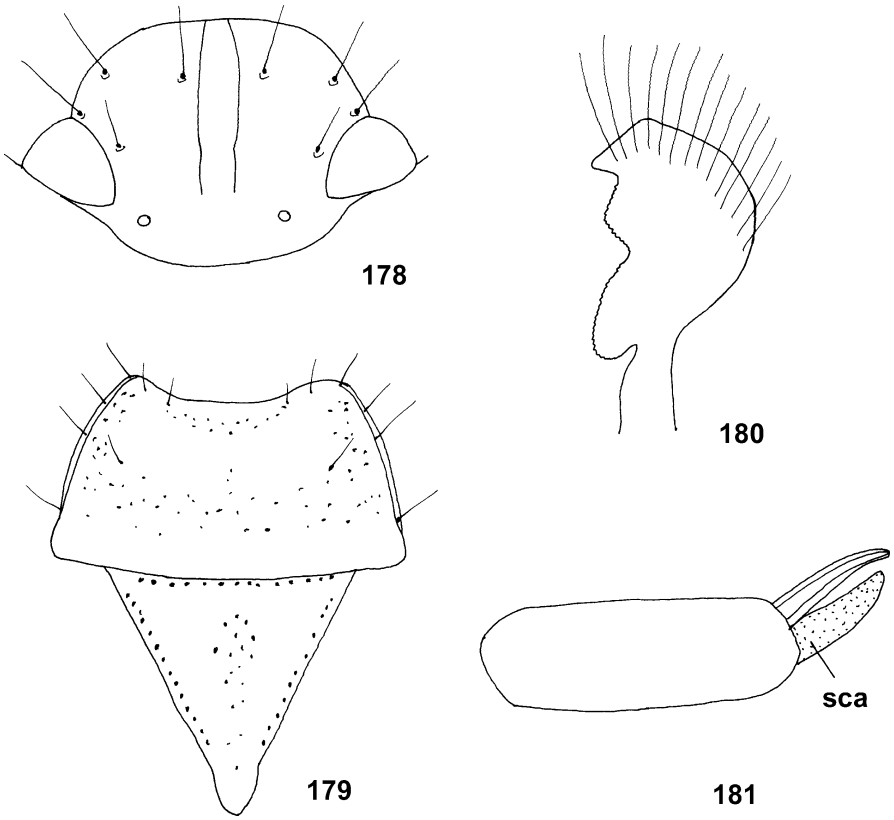
Holotype male: Papua New Guinea, Madang Prov., Nagada Harbour (OXUM).

MATERIAL EXAMINED

Holotype, and 1 paratype: **Papua New Guinea**: Madang Prov., Nagada Harbour, paratype (OXUM).

DISTRIBUTION

Papua New Guinea.



178-181. *Macroscytus lansburyi* J.A. LIS: 178 - head; 179 – pronotum and scutellum; 180 - paramere; 181 - penis (sca – second conjunctival appendage)

Macroscytus lobatus SIGNORET
(Figs 182-188)

Macroscytus lobatus SIGNORET, 1883a: 470; LETHIERRY & SEVERIN 1893: 71; DISTANT 1913: 140; LIS 1999d.

DESCRIPTION

Body 11.32-11.61 mm in length, 6.43-6.63 mm in width, from dark castaneous to almost black.

Head dorsally at first sight looking impunctate, bearing small hardly visible irregularly scattered punctures, lateral parts of paraclypei slightly wrinkled, sometimes with a few large punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus only with 2 primary setigerous punctures, submarginal setigerous punctures absent (Fig. 183); ocular index 2.30-2.45; interocellar index 3.5-5.7; length of antennal segments (in mm): 0.51-0.55 : 0.88-1.01 : 0.78-0.93 : 1.15, 5th segment missing.

Pronotum with clearly visible puncturation, especially behind calli, punctures large and coarse; transverse discal impression behind calli well developed, deep, bearing large coarse, crowded punctures; lateral margins of pronotum without submarginal setigerous punctures, primary setigerous punctures on pronotal disc also absent (Fig. 182). Anterior and posterior convexities of propleuron coarsely punctate, punctures on the posterior convexity larger than those on the anterior, propleural depression with numerous coarse and deep punctures.

Scutellar disc densely coarsely punctate, punctures almost of the same size as those on pronotum, antero-lateral parts and apex impunctate.

Clavus with one almost indistinct and two well visible rows of punctures, its basal part with punctures between rows; mesocorial disc densely and almost evenly punctate, punctures smaller than those on scutellum; exocorium broad, densely and evenly punctate; costa broad, almost totally flatt, separated from exocorium only basally, costal margins punctate, but without setigerous punctures (Fig. 182).

Dorsal margin of male and female hind femur with a row of small, usually dark denticles (Fig. 184); male hind tibia with a few small denticles on its inner margin (Fig. 184); female hind tibia without denticles on the inner margin.

Abdominal sterna distinctly coarsely punctate in lateral two thirds.

Male genitalia as in Figs 185-188.

TYPE DATA

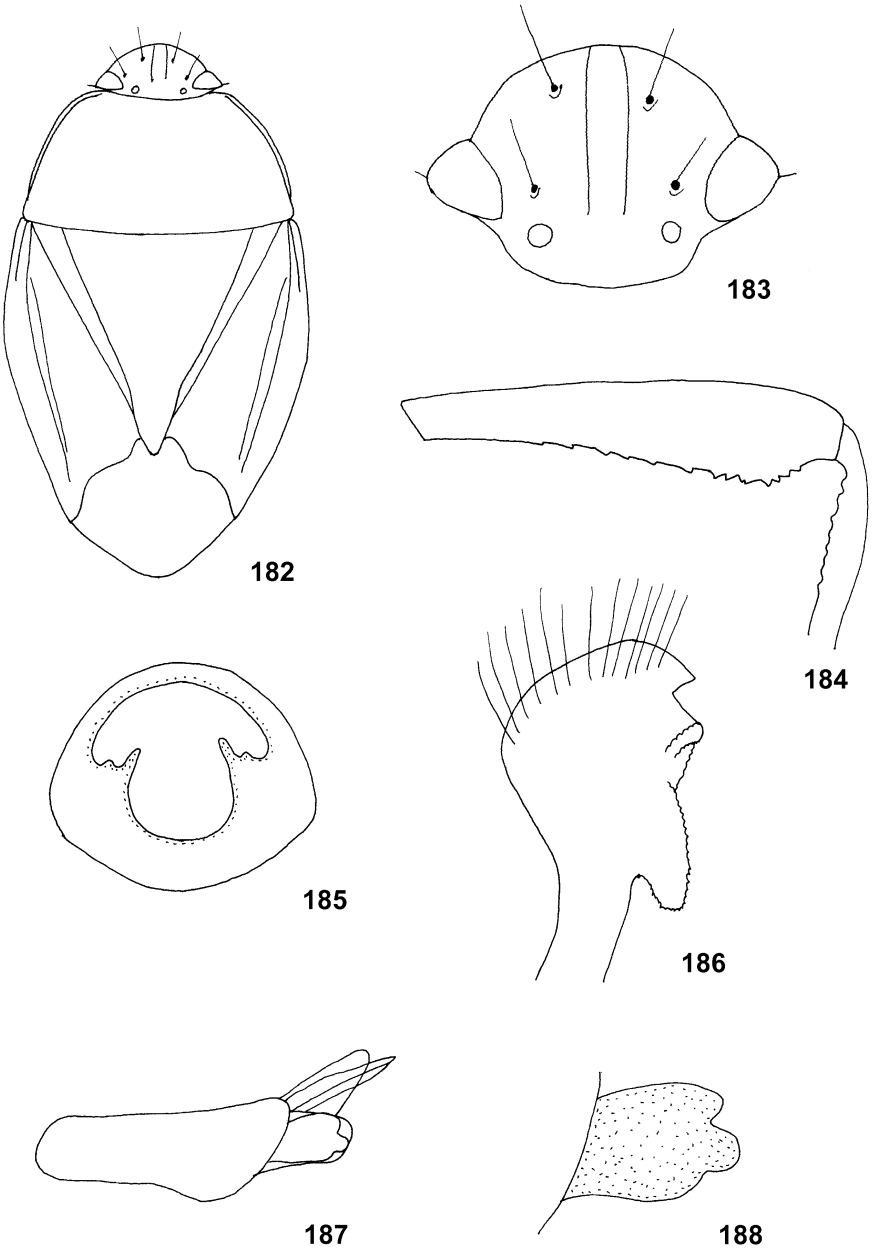
Lectotype male (designated by LIS, 1999d): Bourbon (NHMW).

MATERIAL EXAMINED

Lectotype, and 2 other specimens: **Réunion**: La Réunion, Ile Bourbon, 2 exx. (MNHN, UO).

DISTRIBUTION

Réunion (Bourbon Island).



182-188. *Macroscytus lobatus* SIGN.: 182 - body outline; 183 - head; 184 - male posterior femur and base of tibia; 185 - male genital capsule, dorsal view; 186 - paramere; 187 - penis; 188 - second conjunctival appendage in penis

Macroscytus loksai sp. n.

(Figs 189-195)

DESCRIPTION

H e a d. Black, dorsal surface alutaceous, impunctate, except for setigerous punctures; gular plate impunctate in its anterior half, the posterior part coarsely punctate; bucculae coarsely punctate; clypeus free, as long as paraclypei, subapically without setigerous punctures, each paraclypeus submarginally with 2-3 setigerous punctures bearing hair-like setae (Fig. 190); eyes brown, small, ocular index 3.70-4.35; ocelli brown, small, interocellar index 3.8-4.2, ocellar index 8.4-8.6; antennae brown or dark brown, apical part of 4th and entire 5th segment yellowish brown; rostrum brown or dark brown, surpassing mid coxae.

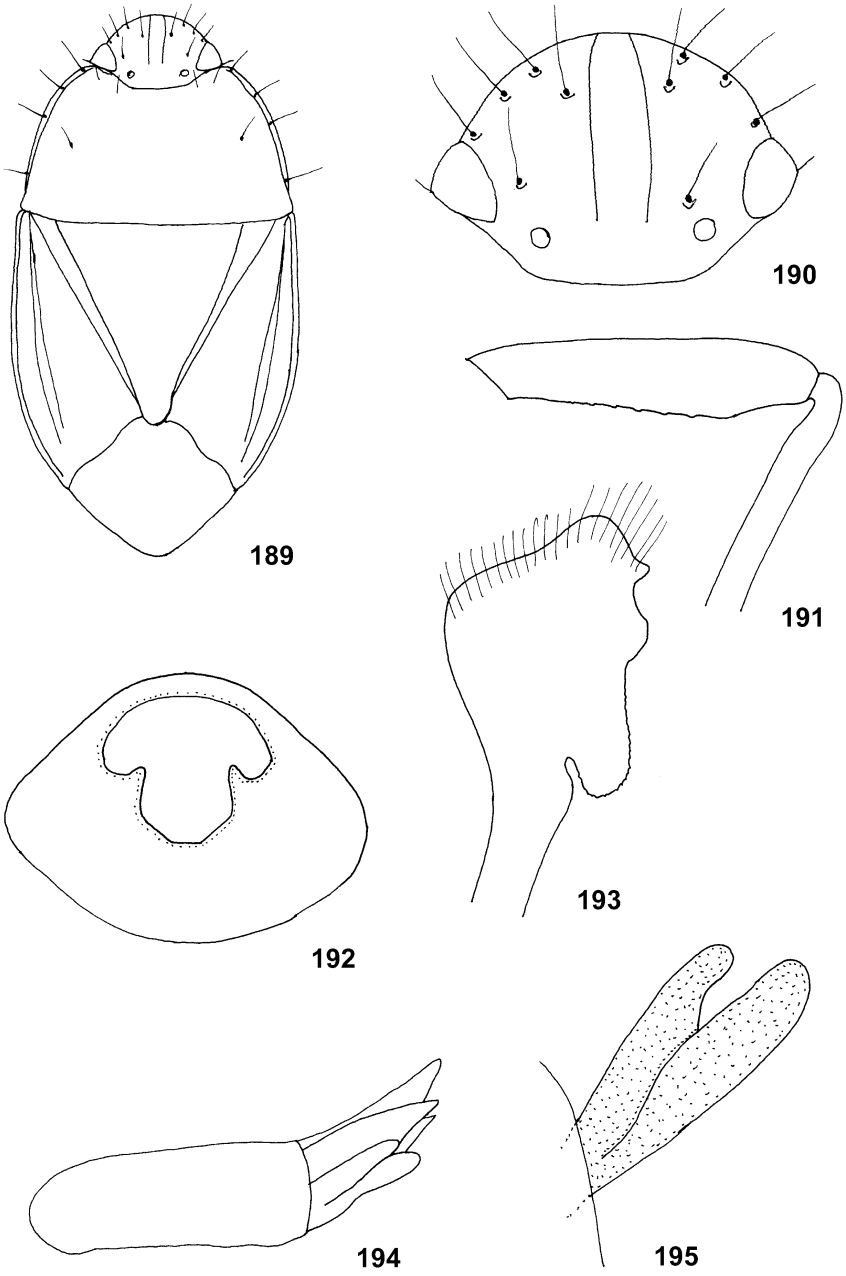
P r o t h o r a x. Pronotum black; its disc polished, impunctate, except for setigerous punctures and numerous small, hardly visible punctures; transverse discal impression behind calli absent; lateral margins of pronotum with 4-5 submarginal setigerous punctures bearing long hair-like setae (Fig. 189). Prosternal carinae low, weakly punctate, but coarsely striated; anterior convexity of propleuron alutaceous with small punctures apically; posterior convexity and propleural depression with coarse punctures.

M e s o t h o r a x. Scutellum black, its disc at first looking sight impunctate, bearing numerous hardly visible tiny punctures, and a few large punctures close to apex. Mesopleural evaporatorium with coarse longitudinal rugae, its posterior wedge-shaped polished band slightly dulled, impunctate.

M e t a t h o r a x. Hemelytra almost black, meso- and exocorium blackish brown; clavus with one complete and two partial short rows of punctures; mesocorial disc sparsely punctate with small punctures; exocorium densely punctate, punctures larger than those on mesocorium; mesocorium and exocorium separated along their entire length; costa narrow, convex, almost entirely separated from exocorium, costal margin punctate, but without setigerous punctures (Fig. 189); membranal suture almost straight; membrane semihyalnie, embrowned, its tip clearly surpassing the posterior extremity of abdomen. Metapleural evaporatorium with longitudinal rugae; lateral area of metapleuron impunctate, except for a small patch of punctures close to evaporatorium margin; posterior area with a row of coarse punctures.

L e g s. Femora and tibiae dark castaneous, tarsi brown; male hind femur with a row of setae on the ventral margin, and a row of very small denticles on the dorsal margin, subapical tooth absent (Fig. 191); male hind tibiae simple, without denticles and tubercles (Fig. 191).

A b d o m e n. Sterna almost black, distinctly punctate with large and coarse punctures only around spiracles and along segmental sutures. Ventral surface of male pygophore impunctate, its dorsal surface pilose, longitudinal sclerites on infolding of its dorsal rim well developed; penis as in Fig. 194, second conjunctival appendages as in Fig. 195, paramere as in Fig. 193, opening of genital capsule as in Fig. 192.



189-195. *Macroscytus loksai* sp. n.: 189 - body outline; 190 - head; 191 - male posterior femur and base of tibia; 192 - male genital capsule, dorsal view; 193 - paramere; 194 - penis; 195 - second conjunctival appendage in penis

M e a s u r e m e n t s (in mm). Males only: body length 7.37-7.68; body width 4.01-4.11; head length 1.14-1.17; head width 1.71-1.82; pronotum length 2.19-2.24; pronotum width 3.65-3.68; scutellum length 2.68-2.71; scutellum width 2.22-2.32; antennal segments: 0.32-0.33 : 0.40-0.46 : 0.47-0.49 : 0.65-0.67 : 0.76-0.79.

TYPE DATA

Holotype male: Papua New Guinea, New Guinea (NE), Wau, 8.IX. 1968, NG-W.R. 19, leg. Dr. J. Loksa (HNHM).

MATERIAL EXAMINED

Holotype, and 1 paratype: **Papua New Guinea**: New Guinea (NE), Wau, 8.IX. 1968, NG-W.R. 19, leg. Dr. J. Loksa (HNHM).

COMPARATIVE NOTES

M. loksai is at first glance similar to another New Guinean species, *M. papuanus*, especially in its body puncturation and the absence of setigerous punctures on costal margins. Nevertheless, the new species can easily be separated from the latter by a number of submarginal setigerous punctures on head submargins (2-3 on each paraclypeus in *M. loksai*, only 1 in *M. papuanus*). Both species differ also in a shape of paramere and 2nd conjunctival appendages of penis.

DISTRIBUTION

Papua New Guinea.

Macroscytus madagascariensis (SIGNORET)

(Figs 196-202)

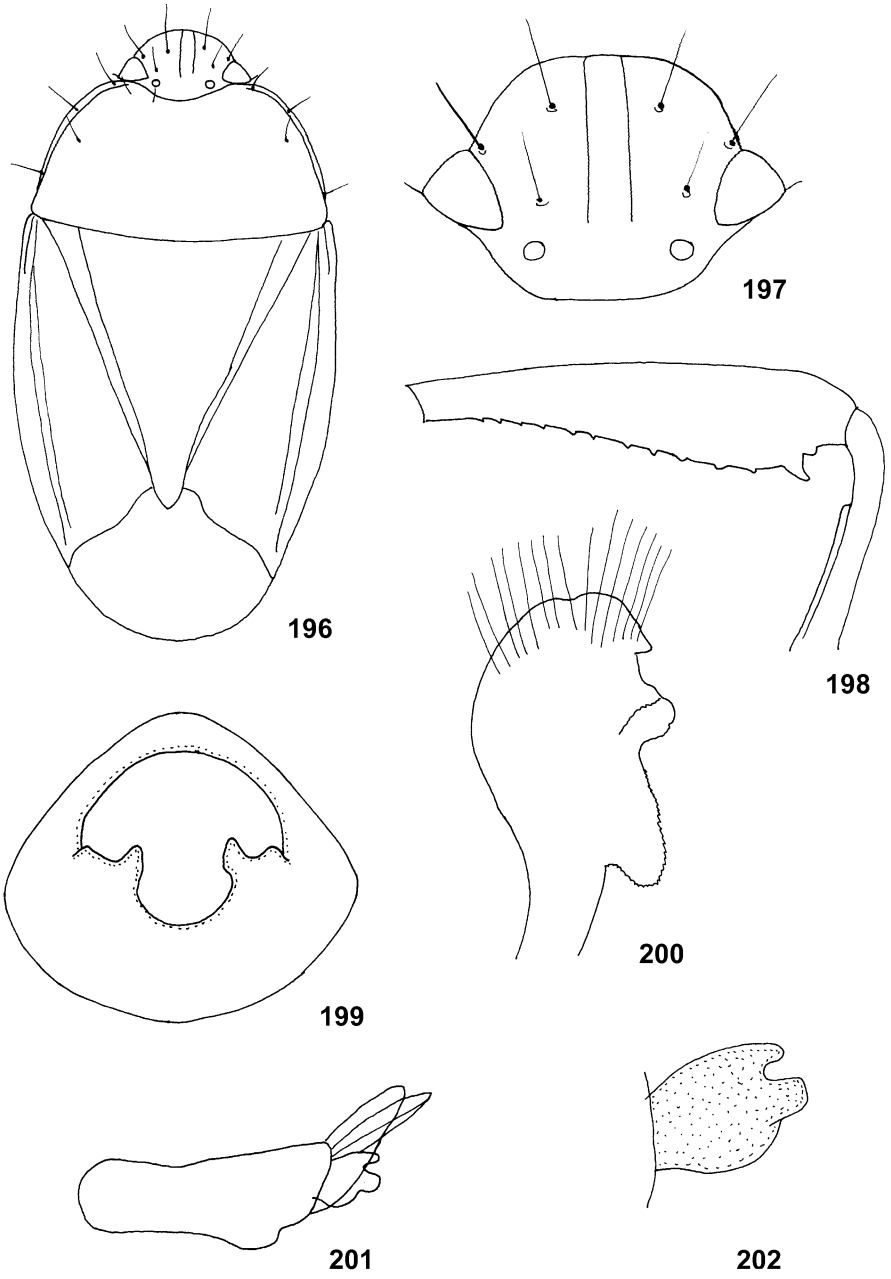
Aethus madagascariensis SIGNORET, 1861: 922; WALKER 1867: 157.
Macroscytus madagascariensis: STÅL, 1865: 24, 1876: 19; SIGNORET 1883a: 467; LETHIERRY & SEVERIN 1893: 71; LIS 1999d.

DESCRIPTION

Body 11.51-12.68 in length, 5.79-6.73 in width, from castaneous to almost black, hemelytra paler than pronotum and scutellum, exocorium usually yellowish brown.

Head dorsally impunctate; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 197); ocular index 2.50-2.90; interocellar index 4.0-6.0; length of antennal segments (in mm): 0.44-0.50 : 0.72-0.83 : 0.73-0.87 : 0.97-1.14 : 1.18-1.32.

Pronotal disc impunctate, except for a row or band of large coarse punctures behind calli; transverse discal impression very shallow or absent; lateral margins of pronotum with 3-4 submarginal setigerous punctures bearing long hair-like



196-202. *Macroscytus madagascariensis* SIGN.: 196 - body outline; 197 - head; 198 - male posterior femur and base of tibia; 199 - male genital capsule, dorsal view; 200 - paramere; 201 - penis; 202 - second conjunctival appendage in penis

setae (Fig. 196). Anterior convexity of propleuron alutaceous, coarsely punctate anteriorly and laterally; posterior convexity alutaceous, with irregularly scattered large punctures; propleural depression with a broad band of large, coarse and deep punctures.

Puncturation of scutellar disc dense, punctures larger than those on pronotum, basal fifth and extreme apex of scutellar disc impunctate.

Clavus with one complete and two partial rows of punctures; mesocorial disc densely and evenly punctate, punctures distinctly smaller than those on scutellum; exocorium densely punctate, punctures slightly smaller than those on mesocorial disc; costa narrow, separated from exocorium only basally, costal margins punctate, but without setigerous punctures (Fig. 196).

Ventral margin of male hind femur with a row of small denticles bearing short setae, and with large subapical tooth, its dorsal margin with a row of small denticles (Fig. 198); male hind tibia carinate on its inner margin (Fig. 198); ventral and dorsal margin of female hind femur with a row of short setae; female hind tibia without carina on its inner margin.

Abdominal sterna polished, punctate in lateral thirds, around trichobothria and spiracles.

Male genitalia as in Figs 199-202.

TYPE DATA

Lectotype male (designated by LIS, 1999d): Madagascar (NHMW).

MATERIAL EXAMINED

Lectotype, and 7 other specimens: **Madagascar**: 2 exx. (MNHN); envir. de Perinet, 2 exx. (MNHN, UO); Sambirano, Manongarivo, 1 ex. (MNHN); Lac Andramdse, 1 ex. (MNHN); massif du Marojejy, 1 ex. (MNHN).

DISTRIBUTION

Madagascar.

Macroscytus matilei J.A. LIS

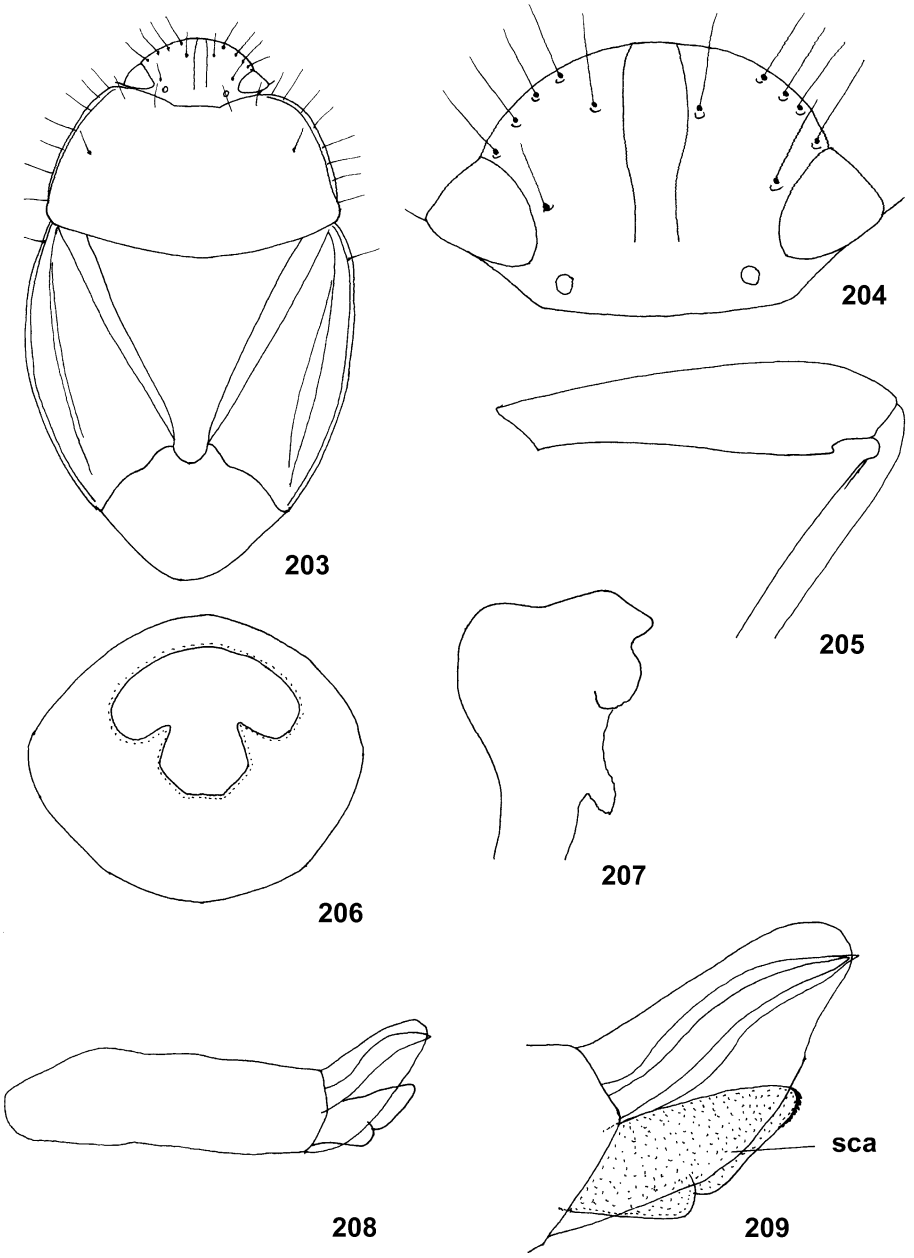
(Figs 203-209)

Macroscytus matilei J.A. LIS, 1997b: 596.

DESCRIPTION

Body 6.63-6.88 mm in length, 3.78-3.96 mm in width, from dark brown to blackish brown, corium usually brown or dark brown exocorium, clavus and apices of umbones; sometimes pale brown; dorsal surface generally weakly punctate.

Head dorsally at first sight looking impunctate, but bearing hardly visible tiny punctures; clypeus subapically without setigerous punctures, each paraclypeus



203-209. *Macroscytus matilei* J.A. Lis: 203 - body outline; 204 - head; 205 - male posterior femur and base of tibia; 206 - male genital capsule, dorsal view; 207 - paramere; 208 - penis; 209 - apical part of penis (sca – second conjunctival appendage)

with a row of 3-4 submarginal setigerous punctures bearing long hair-like setae (Fig. 204); ocular index 2.40-2.65; interocellar index 5.0-6.5; length of antennal segments (in mm): 0.25-0.35 : 0.39-0.42 : 0.40-0.46 : 0.53-0.57 : 0.59-0.65.

Pronotum without transverse discal impression behind calli; pronotal disc weakly punctate; lateral margins with 6-9 submarginal setigerous punctures (Fig. 203). Propleuron polished, depression with numerous coarse punctures.

Scutellum weakly punctate with large clearly visible punctures.

Clavus with one complete and two partial rows of punctures; mesocorial disc with evenly spaced punctures smaller than those on scutellum; costa convex, entirely separated from exocorium, bearing a single setigerous puncture (Fig. 203).

Male hind femora with small, blunt subapical denticle, male hind tibiae only slightly carinate (Fig. 205); female hind femora and tibiae simple.

Abdominal sterna polished, almost totally impunctate, except for surface close to spiracles bearing irregular patches of tiny punctures accompanied by numerous wrinkles and striae.

Male genitalia as in Figs 206-209.

TYPE DATA

Holotype female: New Caledonia, Tiwaka, Poindimié (MNHN).

MATERIAL EXAMINED

Holotype, 2 paratypes, and 2 other specimens: **New Caledonia**: env. Poindimié, 2 paratypes (MNHN, UO); La Crouen, 1 ex. (BMH); Grotte de Ninrin-Reu nr. Poya, 1 ex. (SAM).

DISTRIBUTION

New Caledonia.

Macroscytus mayottensis J.A. LIS

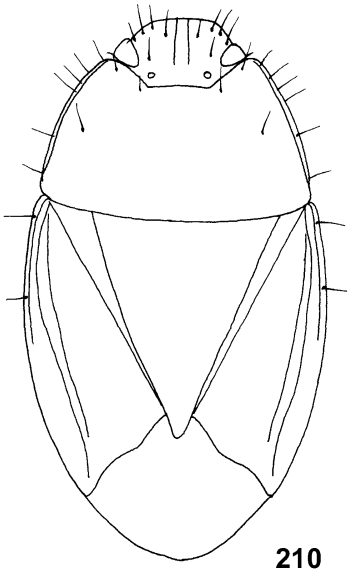
(Figs 210-216)

Macroscytus mayottensis J.A. LIS, 1999d.

DESCRIPTION

Body 7.80-9.37 mm in length, 4.55-5.15 mm in width, from dark castaneous to almost black.

Head dorsally at first sight looking impunctate, but bearing a few small punctures in lateral parts; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with 2-3 setigerous punctures bearing long hair-like setae (Fig. 211); ocular index 2.17-2.40; interocellar index 6.0-6.3; length of antennal segments (in mm): 0.37-0.47 : 0.55-0.69 : 0.60-0.67 : 0.76-0.94 : 0.90-1.08.



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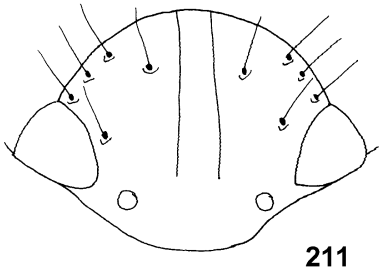

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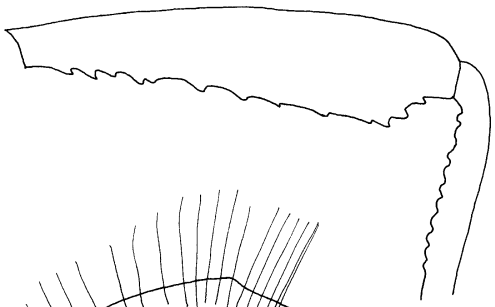

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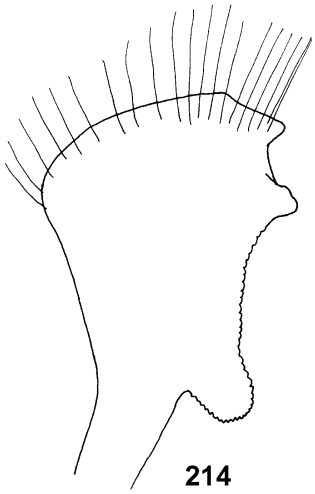

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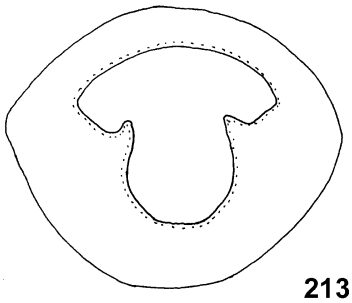

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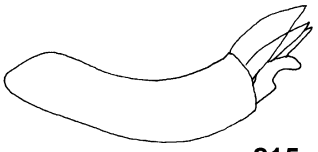

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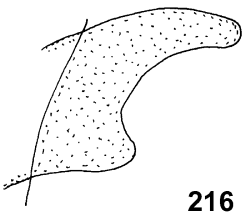

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210-216. *Macroscytus mayottensis* J.A. Lis: 210 - body outline; 211 - head; 212 - male posterior femur and base of tibia; 213 - male genital capsule, dorsal view; 214 - paramere; 215 - penis; 216 - second conjunctival appendage in penis

Puncturation of pronotal disc weak, punctures irregularly scattered, better visible behind head and in shallow transverse impression behind calli; lateral margins of pronotum with 6 submarginal setigerous punctures bearing long hair-like setae (Fig. 210). Anterior convexity of propleuron alutaceous, punctate laterally and apically, posterior convexity distinctly coarsely punctate with large punctures, propleural depression coarsely punctate.

Scutellar disc with almost evenly spaced punctures as large as those on pronotum, apex and basal fifth of scutellar disc impunctate.

Punctures on corium distinctly smaller than those on scutellum; clavus with one complete and two partial rows of punctures; mesocorial disc densely and almost evenly punctate; exocorium densely punctate; costa narrow, flattened, separated from exocorium only in its basal half, costal margin with 2 setigerous punctures (Fig. 210).

Male hind femur with a row of tubercles on its dorsal margin, and a row of denticles on ventral margin, subapical teeth well visible (Fig. 212); male hind tibia with a row of denticles (Fig. 212); female hind femora with a row of setae on margins, female tibiae simple.

Abdominal sterna more or less polished, punctate only close to spiracles and trichobothria.

Male genitalia as in Figs 213-216.

TYPE DATA

Holotype male: Comoros, Mayotte, Mamoutzou (MNHN).

MATERIAL EXAMINED

Holotype, and 2 paratypes: **Comoros**: Grande Comore, 1 paratype (UO); Grande Comore, Nioumbadjou, Raharizonina, 1 paratype (MNHN).

DISTRIBUTION

Comoros.

Macroscytus minimus J.A. LIS

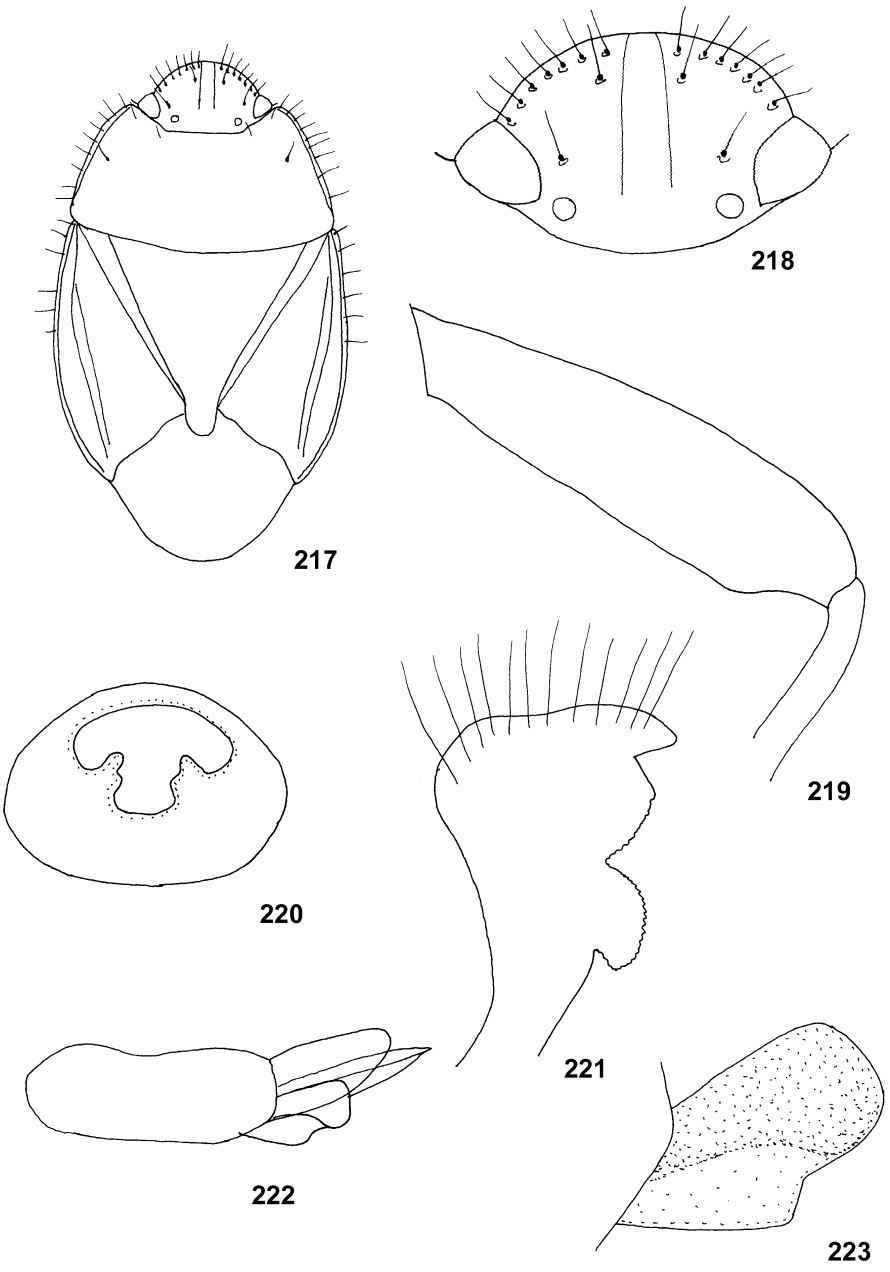
(Figs 217-223)

Macroscytus minimus J.A. LIS, 1999a: 473.

DESCRIPTION

Body 4.75-5.70 mm in length, 2.73-3.19 mm in width, from dark castaneous to blackish brown, corium from castaneous to dark castaneous with punctures darker than the corial disc.

Head dorsally slightly wrinkled, at first glance looking impunctate, but bearing numerous hardly visible tiny punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with 6-8 (usually 7)



217-223. *Macroscytus minimus* J.A. Lis: 217 - body outline; 218 - head; 219 - male posterior femur and base of tibia; 220 - male genital capsule, dorsal view; 221 - paramere; 222 - penis; 223 - second conjunctival appendage in penis

setigerous punctures bearing long hair-like setae (Fig. 218); ocular index 2.42-2.75; interocellar index 10.0-16.0; length of antennal segments (in mm): 0.20-0.28 : 0.22-0.33 : 0.26-0.35 : 0.33-0.39 : 0.35-0.43.

Pronotal disc distinctly punctate in its anterior and lateral parts and behind calli; transverse discal impression absent; lateral margins of pronotum with 7-9 submarginal setigerous punctures bearing long hair-like setae (Fig. 217). Anterior convexity of propleuron impunctate, posterior convexity impunctate except for a few punctures, propleural depression coarsely punctate.

Scutellar disc densely punctate with punctures larger than those on pronotum, anterolateral angles and apex impunctate.

Mesocorial disc entirely evenly punctate; exocorium densely punctate; costa narrow, almost entirely separated from exocorium, bearing 4-6 setigerous punctures (Fig. 217).

Margins of male and female hind femur without tubercles, subapical teeth absent (Fig. 219); male and female hind tibia simple, not specifically modified (Fig. 219).

Abdominal sterna almost totally impunctate, except for a row of punctures along each segmental suture, and a few coarse wrinkles and punctures posterior to spiracles and trichobothria.

Male genitalia as in Figs 220-223.

TYPE DATA

Holotype male: Australia, South Queensland, Taroom District, Vine Thicket on hill (QMB).

MATERIAL EXAMINED

Holotype, 18 paratypes, and 34 other specimens: **Australia**: South Queensland, Taroom District, Vine Thicket on hill, 1 paratype (QMB); Queensland, Cunnamulla, Caravan Pk., 11 paratypes (SAM, UO); Queensland, Annamulla, Caravan Park, 6 paratypes (SAM, UO); Queensland, Brisbane, 1 ex. (BMNH); Northern Territory, Bowerbird, Magela Creek, 3 exx. (NTM, UO); Northern Territory, Gimbat Stn., 1 ex. (NTM); Northern Territory, Umbrawarra Gorge, 2 exx. (NTM); Northern Territory, Alice Springs, 3 exx. (NTM, UO); Northern Territory, Palm Valley, Finke Gorge National Park, 1 ex. (NTM); Northern Territory, Ormiston Gorge, Jn. Ormiston and Pioneer Creeks, 1 ex. (NTM); Northern Territory, Giles Ck. or Wattie Ck., 7km N Wave Hill Police Stn., 1 ex. (NTM); Northern Territory, Lake Argyle, 1 ex. (NTM); Northern Territory, Top of Ayers Rock, 2 exx. (WAM); South Australia, Coopers Creek, Ferry Crossing, 2 exx. (SAM); South Australia, Hallett Cove, 20km SW of Adelaide, 1 ex. (UO); South Australia, 5 1/2km WNW Myrtle Springs, 1 ex. (SAM); South Australia, W coast, SE Westalt Point, Smooth Point, 1 ex. (SAM); South Australia, Wirreandah Crk., Crossing, 30km S Hawker, 1 ex. (SAM); South Australia, Yumbarra Nat. Pk., 1 ex. (SAM); New South Wales, Wilcannia, 1 ex. (SAM); New South Wales,

Narrabeen, 3 exx. (HMNH); New South Wales, Sydney, 1 ex. (BMNH); Western Australia, Boorabbin Rock, 1 ex. (WAM); Western Australia, Mt. Ant, 1 ex. (WAM); Western Australia, Marandoo Camp, 2 exx. (WAM, UO); Western Australia, Wurarga, Marloo Stat., 1 ex. (MNHU); Western Australia, Kununurra via Wyndham, 1 ex. (HNHM).

DISTRIBUTION

Australia.

Macroscytus monteithi J.A. LIS

(Figs 224-230)

Macroscytus monteithi J.A. LIS, 1999a: 474.

DESCRIPTION

Body 6.63-7.57 mm in length, 3.66-4.21 mm in width, from castaneous to almost black, corium paler than pronotum and scutellum.

Head dorsally polished, at first glance looking impunctate, bearing very small irregularly scattered punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 225); ocular index 2.23-2.51; interocellar index 6.0-7.7; length of antennal segments (in mm): 0.29-0.33 : 0.33-0.43 : 0.39-0.47 : 0.50-0.65 : 0.57-0.75.

Pronotal disc almost impunctate, bearing a few small irregularly scattered punctures; transverse discal impression behind calli absent; lateral margins of pronotum with 5-6 submarginal setigerous punctures bearing long hair-like setae (Fig. 224). Anterior convexity of propleuron more or less punctate anteriorly and laterally, posterior convexity with a few irregularly scattered punctures, propleural depression with a broad band of coarse punctures.

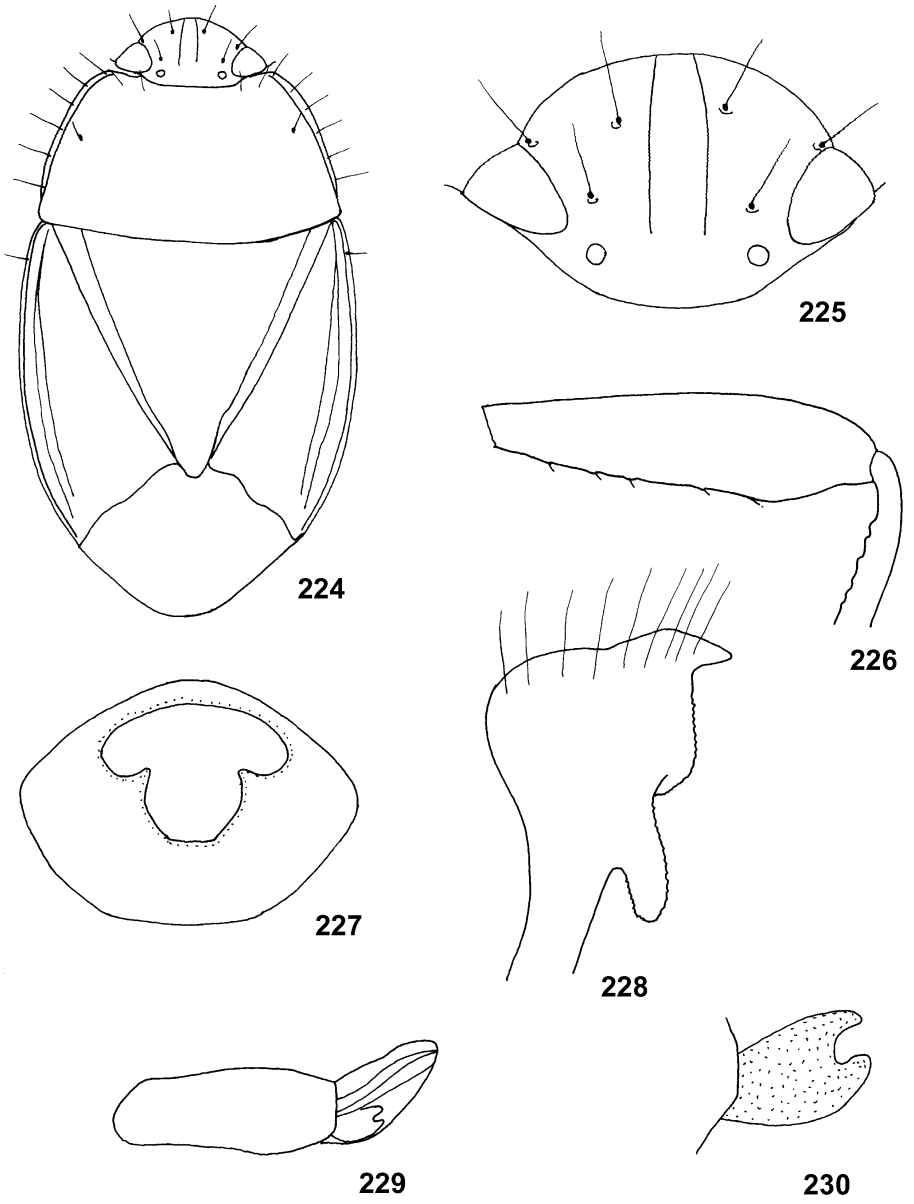
Puncturation of scutellar disc irregular, well visible in its median part.

Mesocorial disc almost evenly punctate with punctures as large as those on scutellum; exocorium densely punctate; costa narrow, convex and raised, almost entirely separated from exocorium, bearing a single setigerous puncture (Fig. 224).

Femora castaneous or dark castaneous, tibiae basally brown or yellowish brown getting darker towards tarsi; male hind femur with a few very small, almost indistinct denticles bearing short setae on dorsal margin (Fig. 226); male hind tibia with a few very small, sometimes almost indistinct denticles on its inner margin (Fig. 226); female hind femur and tibia without denticles on inner margins.

Abdominal sterna polished, slightly wrinkled, coarsely punctate only close to lateral margins of segments, around trichobothria and posterior to spiracles.

Male genitalia as in Figs 227-230.



224-230. *Macroscytus monteithi* J.A. Lis: 224 - body outline; 225 - head; 226 - male posterior femur and base of tibia; 227 - male genital capsule, dorsal view; 228 - paramere; 229 - penis; 230 - second conjunctival appendage in penis

TYPE DATA

Holotype male: Australia, North Queensland, Mt Abbott, RF Gully (QMB).

MATERIAL EXAMINED

Holotype, and 7 paratypes: **Australia**: Queensland, Mossman Bluff Track, 5-10km W Mossman, 1 paratype (QMB); Queensland, Mt French National Park, 3 paratypes (QMB, UO); Queensland, Yarraman, 2 paratypes (QMB, UO); Queensland, „Glen Witheren", Main Scrub, 1 paratype (QMB).

DISTRIBUTION

Australia.

Macroscytus nigroaeneus (WALKER)

(Figs 231-233)

Aethus nigroaeneus WALKER, 1867: 158; LETHIERRY & SEVERIN 1893: 81.
Macroscytus foveolus, not ot DALLAS: SIGNORET 1883a: 472.
Cydnus ceylonicus, not of MAYR: LETHIERRY & SEVERIN 1893: 65 [part]; DISTANT 1899: 227 [part].
Aethus ceylonicus, not ot MAYR: KIRBY 1891: 80 [part].
Cydnus nigroaënus: DISTANT 1902: 92.
Macroscytus nigroaeneus: HORVÁTH 1919: 239; LIS 1991a: 185 [as distinct species], 1994a: 241.

DESCRIPTION

Body 8.40-10.69 mm in length, 4.70-6.45 mm in width, from blackish brown to black, corium usually more brown than pronotum and scutellum; sometimes umbones of pronotum light brown apically.

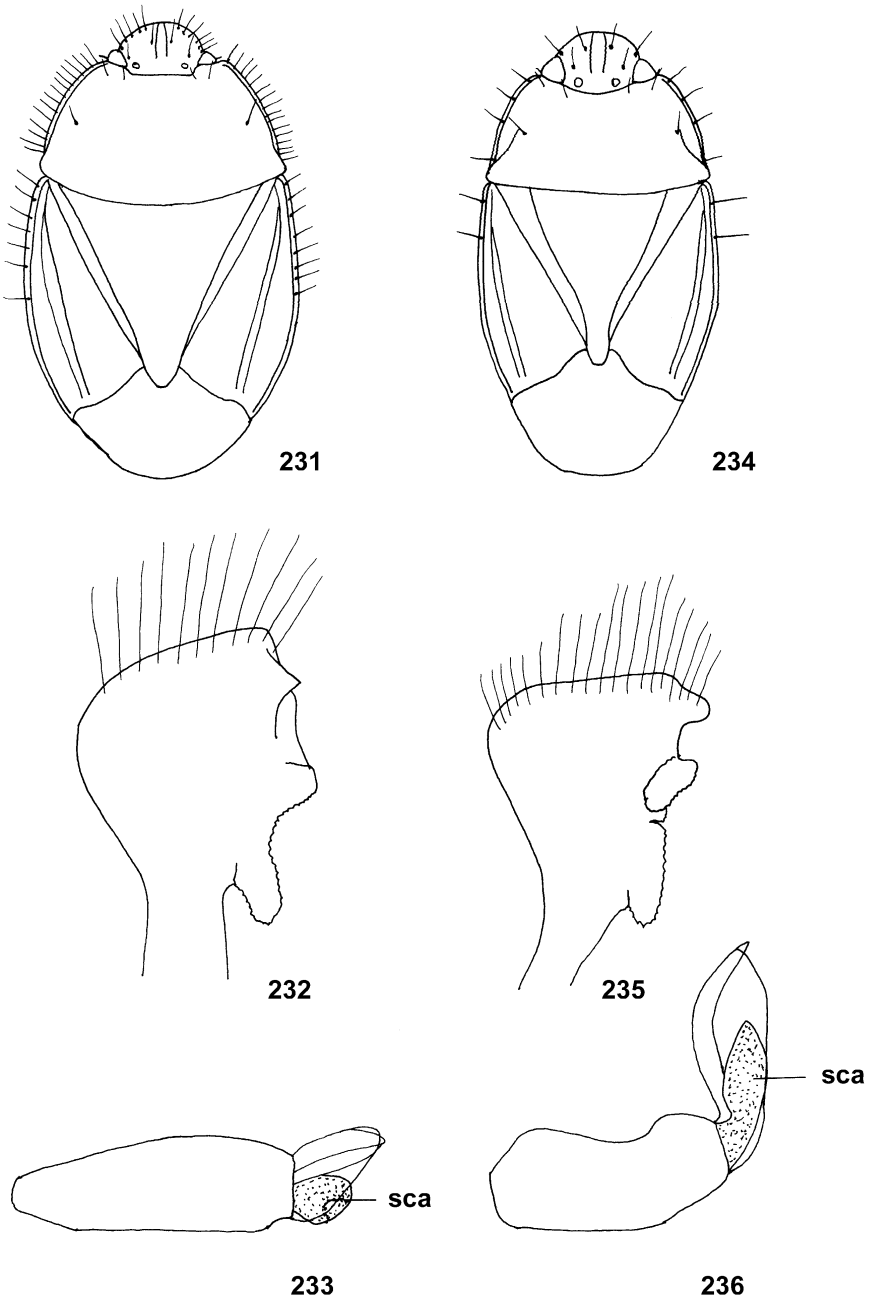
Head dorsally wrinkled, distinctly punctate on paraclypei, vertex smooth; clypeus without a pair of subapical hair-like setae, each paraclypeus with 4-8 submarginal setigerous punctures bearing long hair-like setae (Fig. 231); ocular index 2.45-2.90; interocellar index 8.0-13.0; length of antennal segments (in mm): 0.35-0.49 : 0.49-0.77 : 0.47-0.70 : 0.65-0.87 : 0.70-0.91.

Pronotal transverse postmedian impression absent or only faintly developed; calli more or less elevated; puncturation of disc dense, well visible medially and posteriorly; lateral margins with 12-16 submarginal setigerous punctures bearing long hair-like setae (Fig. 231).

Scutellum densely punctate, with exception of anterolateral angles and apex.

Corium punctate; clavus with one complete and two partial rows of punctures; mesocorial disc and exocorium densely punctate; costa narrow, almost entirely separated from exocorium, bearing 4-9 setigerous punctures (Fig. 231). Propleural depression, apical part of anterior convexity, and almost entire posterior convexity distinctly punctate.

Male hind femora with conspicuous subapical tooth, male hind tibiae with large subbasal tubercle.



231-233. *Macroscytus nigroaeneus* (WALK.), 234-236. *Macroscytus noonadanae* FROESCH.: 231, 234 - body outline; 232, 235 - paramere; 233, 236 – penis (sca - second conjunctival appendage)

Abdominal sterna glossy in the middle, lateral two thirds of sterna III-VI distinctly punctate and sometimes also transversely striated, sternum VII almost impunctate.

Male genitalia as in Figs 232-233.

TYPE DATA

Lectotype female (designated by LIS 1991a: 185): Ceylon (BMNH).

MATERIAL EXAMINED

Lectotype, and 94 other specimens: **India**: Coimbatore, Madras St., 25 exx. (IRSNB, NNML, ZMA, NSMT, UO); Point Calimere, Madras St., 1 ex. (NSMT); Anamalai Hills, Cinchona, 1 ex. (NNML); Pondicherry State, Karikal, 3 exx. (NNML); Kerala, Trichur Distr., Peechi, 2 exx. (UO); Trichinopoli, 1 ex. (MNHN); Trevandrum, 1 ex. (MNHN); Coromandel, Genji, 1 ex. (MNHN); Ramandorogm, 1 ex. (HNHM); Madras, Presid, Ramandroog, 2 ex. (ZIZM, NHMW); Tenmalai, Travancore, 3 exx. (BMNH); Dhikala, Naini Tal, 1 ex. (BMNH); Cote de Malabar, 2 exx. (MNHN); Karnataka, Abiathi, 1 ex. (ZSMC). **Nepal**: Amiekhgani, Therai, 1 ex. (UO). **Sri Lanka**: Ceylon, 3 xx. (NhMW, HNHM, BMNH); Anuradhapura, 2 exx. (ZMA, ZSMC); Wirawila, 2 exx. (SMNS); Paradeniya, 1 ex. (NHMW); Hambantota, 2 exx. (BMNH); Galge Ruhunu Nat. Park, 1 ex. (UO); Vavuniya NP., 1 ex. (BMNH); Batticaloa, 1 ex. (BMNH); Polonuruwa, 2 exx. (TLM); Nat. Park Wilpattu, Talawila, 13 km W Maradanmaduwa, 17 exx. (ZIP); Nat. Park Yala, Mahasilawa, 8 km ENE Palatupana, 8 exx. (ZIP); Southern Prov., Yala Nat. Res., 1 ex. (HNHM); Noert Western Prov., Galkulama, SE Anuradhapura, 3 exx. (HNHM, UO); Katagarama, Buttala Road, 3 exx. (HNHM, UO); Dambulla env., 1 ex. (ZSMC).

DISTRIBUTION

India, Nepal, Sri Lanka.

Macroscytus noonadanae FROESCHNER

(Figs 234-236)

Macroscytus noonadanae FROESCHNER, 1967: 19; LIS 1994a: 223.

DESCRIPTION

Body 7.65-8.40 mm in length, 3.77-4.01 in mm in width, chocolate brown, corium a little paler than pronotum and scutellum.

Head dorsally polished and impunctate; clypeus without a subapical pair of hair-like setae, each paraclypeus submarginally with a single preocular setigerous puncture bearing long hair-like seta (Fig. 234); ocular index 1.89-1.98; ocelli large, interocellar index about 8.4-8.5: length of antennal segments (in mm): 0.36-0.40 : 0.44-0.46 : 0.62-0.67 : 0.78-0.79 : 0.87-1.02.

Puncturation of pronotal disc well visible, especially laterally and posteriorly; transverse impression behind calli deep, bearing a row of coarse punctures interrupted medially, impression continues laterally backwards to umbones; lateral margins with 4 setigerous punctures bearing long hair-like setae (Fig. 234). Anterior convexity of propleuron with small punctures, depression strong with crowded coarse punctures which become finer and sparser posteriorly.

Scutellar disc with numerous coarse irregularly spaced punctures, its basal part and apex impunctate.

Clavus with one complete row of punctures and few punctures basally; mesocorial disc with scattered almost colourless small punctures; exocorium with very few punctures finer than those on mesocorium; costa almost entirely separated from exocorium, bearing 2 setigerous punctures (Fig. 234).

Male hind femora with short tooth subapically, hind tibiae ventrally with a weak basal emargination and small tubercles.

Abdominal sterna shining, almost smooth, lateral parts weakly wrinkled; each segment with triangular patch of dense fine punctures posterior to spiracle.

Male genitalia as in Figs 235-236.

TYPE DATA

Holotype male: Philippines, Balabac, Dalawan Bay (ZMUC).

MATERIAL EXAMINED

Holotype, and 1 paratype: **Philippines**: Balabac, Dalawan Bay, 1 paratype (ZMUC).

DISTRIBUTION

Philippines.

Macroscytus papuanus **HORVÁTH**

(Figs 237-243)

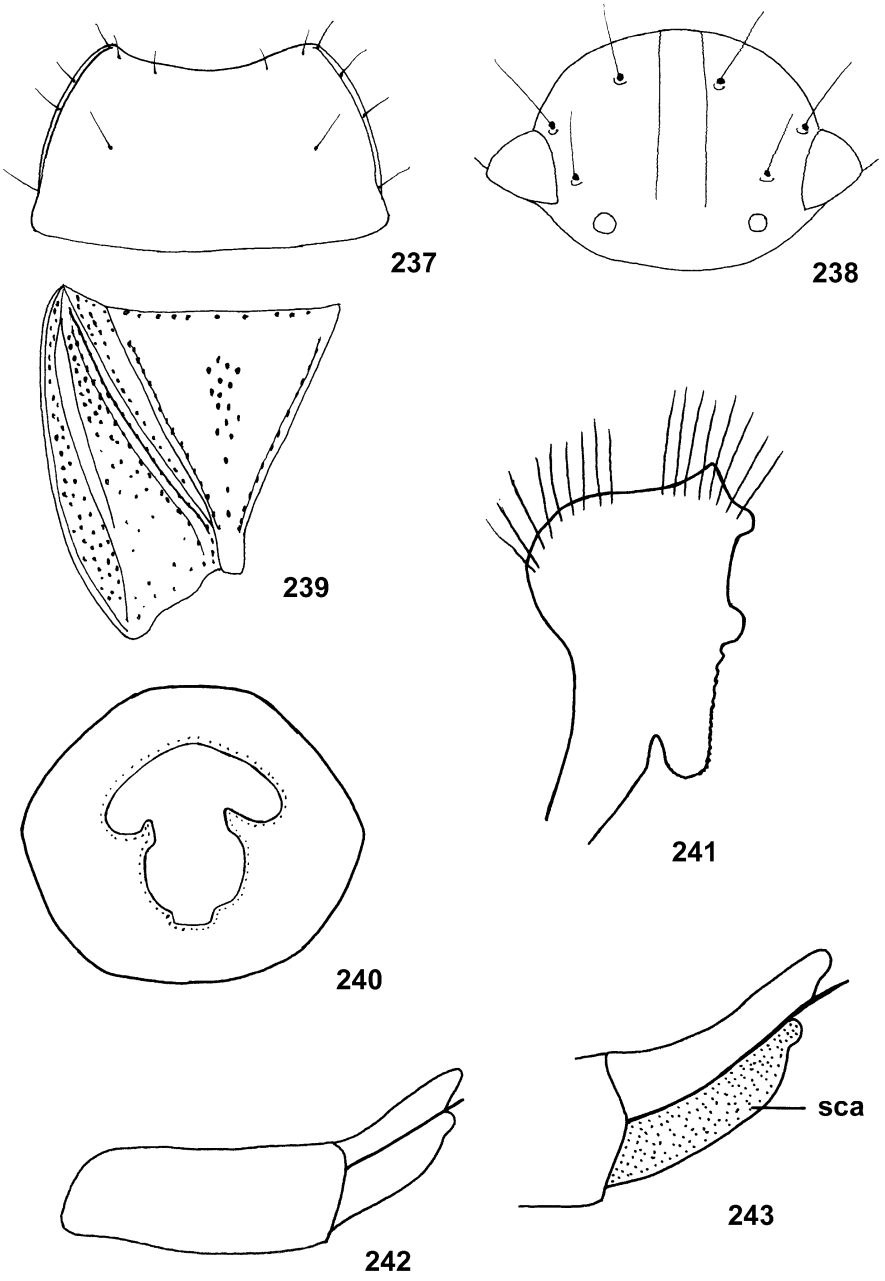
Macroscytus papuanus HORVÁTH, 1919: 243; LIS 1994b: 325, 1995b: 145, 1996: 223.

DESCRIPTION

Body 6.98-8.86 mm in length, 3.75-4.65 mm in width, almost black, corium and posterior margin of pronotal disc blackish brown.

Head dorsally looking impunctate, but bearing hardly visible tiny punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular puncture bearing long hair-like seta (Fig. 238); ocular index 2.75-3.80; interocellar index 3.7-5.0; length of antennal segments (in mm): 0.35-0.42 : 0.40-0.54 : 0.49-0.72 : 0.63-0.91 : 0.76-0.98.

Pronotal disc almost impunctate, with punctures better visible in its posterior half; transverse discal impression behind calli absent or only faintly developed;



237-243. *Macroscytus papuanus* HORV.: 237 - pronotum; 238 - head; 239 – corium and scutellum; 240 - male genital capsule, dorsal view; 241 - paramere; 242 - penis; 243 - apical part of penis (sca – second conjunctival appendage)

lateral margins with 4 submarginal setigerous punctures (Fig. 237). Anterior convexity of propleuron alutaceous, impunctate; posterior convexity and propleural depression with numerous coarse punctures.

Scutellar disc almost impunctate, except for median patch of punctures (Fig. 239).

Mesocorium punctate with several large punctures basally, apically almost impunctate (Fig. 239); exocorium densely punctate with large punctures; costa narrow, almost entirely separated from exocorium, without setigerous punctures (Fig. 239).

Hind femora with small subapical teeth in both sexes, hind tibiae with neither denticles nor emargination on inner margins.

Abdominal sterna smooth and polished; sutures laterally with small punctures, each sternite with a patch of punctures posterior to spiracle, and a few punctures anterior to it.

Male genitalia as in Figs 240-243.

TYPE DATA

Lectotype male (designated by LIS 1996: 223): New Guinea, Lemien Berlinenhafen (HNHM).

MATERIAL EXAMINED

Lectotype, and 7 other specimens: **Papua New Guinea**: Kokoda, 1 ex. (BMNH); Madang Dist., Finisterre Mts, Damanti, 2 exx., Budemu 3 exx., Moro 1 ex. (BMNH, UO).

DISTRIBUTION

Papua New Guinea.

Macroscytus pfeifferi SIGNORET

(Figs 244-250)

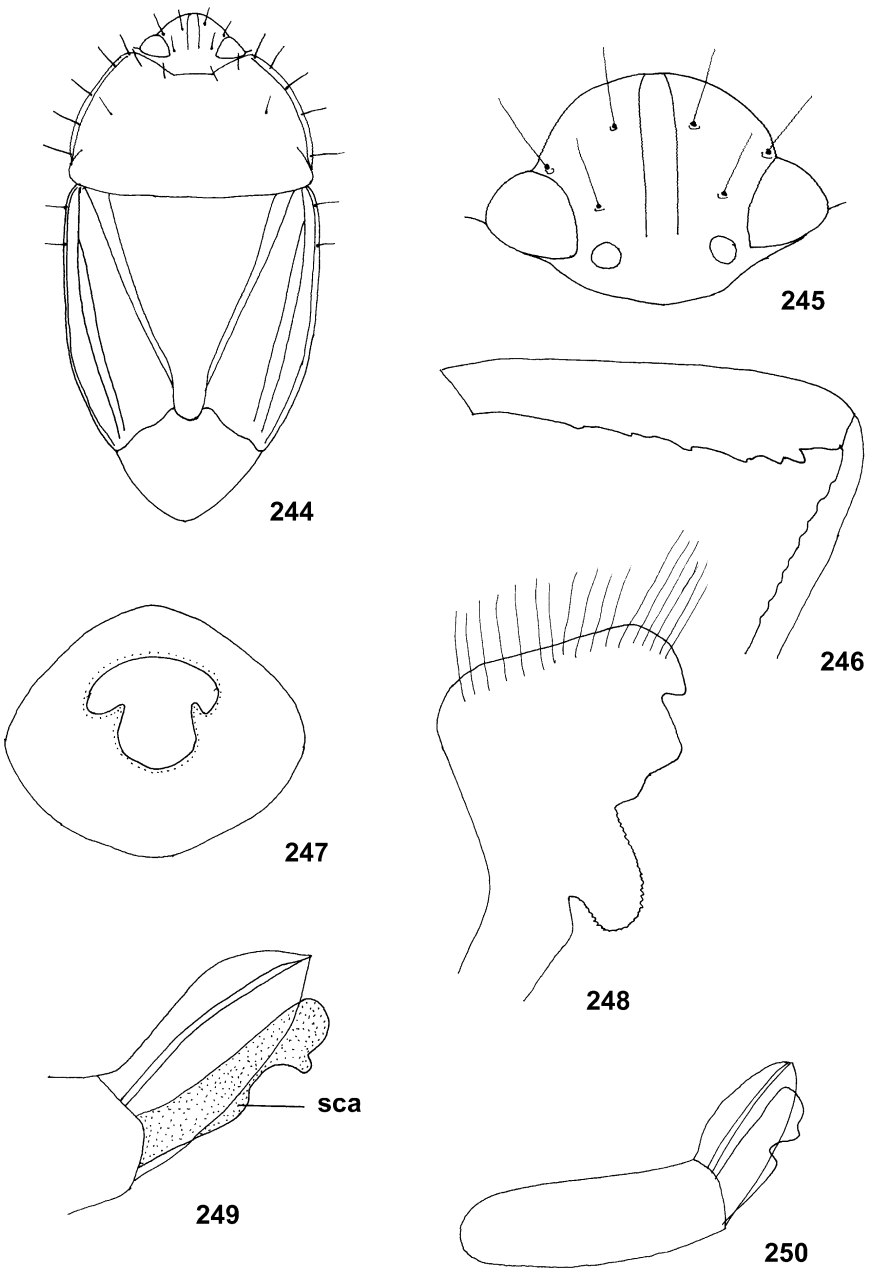
Macroscytus pfeifferi SIGNORET, 1883a: 468; LETHIERRY & SEVERIN 1893: 71; LIS 1994a: 224.

DESCRIPTION

Body 10.67-12.17 mm in length, 6.02-6.32 mm in width, almost black, corium brownish black.

Head dorsally impunctate; clypeus as long as paraclypei, without subapical setigerous punctures, each paraclypeus submarginally with a single preocular setigerous punctures (Fig. 245); ocular index 1.66-2.08; ocelli large, interocellar index 5.5-8.7; length of antennal segments (in mm): 0.43-0.55 : 0.56-0.70 : 0.85-1.13 : 1.09-1.25 : 1.15-1.35.

Pronotal disc with well visible puncturation; transverse discal impression behind calli present, accompanied by a row of coarse punctures; lateral margins



244-250. *Macroscytus pfeifferi* Sign.: 244 - body outline; 245 - head; 246 - male posterior femur and base of tibia; 247 - male genital capsule, dorsal view; 248 - paramere; 249 - apical part of penis (sca – second conjunctival appendage); 250 - penis

with 4-6 submarginal setigerous punctures (Fig. 244). Propleuron punctate, anterior convexity dulled by numerous tiny punctures, depression and posterior convexity with larger punctures.

Scutellum sparsely punctate, its basal part and apex impunctate.

Corium distinctly punctate with punctures smaller than those on pronotum and scutellum; clavus with one complete and one partial row of punctures; mesocorial disc almost evenly punctate; costa moderately convex, almost entirely separated from exocorium, bearing 1-2 setigerous punctures (Fig. 244).

Male hind femora with large subapical tooth on dorsal margin, and numerous small teeth on the ventral (Fig. 246); hind tibiae with small subbasal tubercles (Fig. 246); female hind femora with small conspicuous subapical tooth on dorsal margin, hind tibiae without tubercles.

Abdominal sterna alutaceous, slightly wrinkled; sterna V-VII with patches of tiny punctures posterior and anterior to spiracle, sternum III and sometimes also sternum IV with very few punctures anteriorly of the spiracle.

Male genitalia as in Figs 247-250.

TYPE DATA

Lectotype female (designated by LIS 1994a: 225): Borneo (NHMW).

MATERIAL EXAMINED

Lectotype, and 11 other specimens: **Indonesia**: North Sumatra, Bivonac One, Mt. Bandahara, 9 exx. (NNML, UO). **Malaysia**: Borneo, Sarawak, Semongok, 1 ex. (UO). **Vietnam**: Tonkin, Montes Mauson, 1 ex. (NhMW).

DISTRIBUTION

Borneo, Sumatra, Vietnam.

Macroscytus piceus (WESTWOOD)

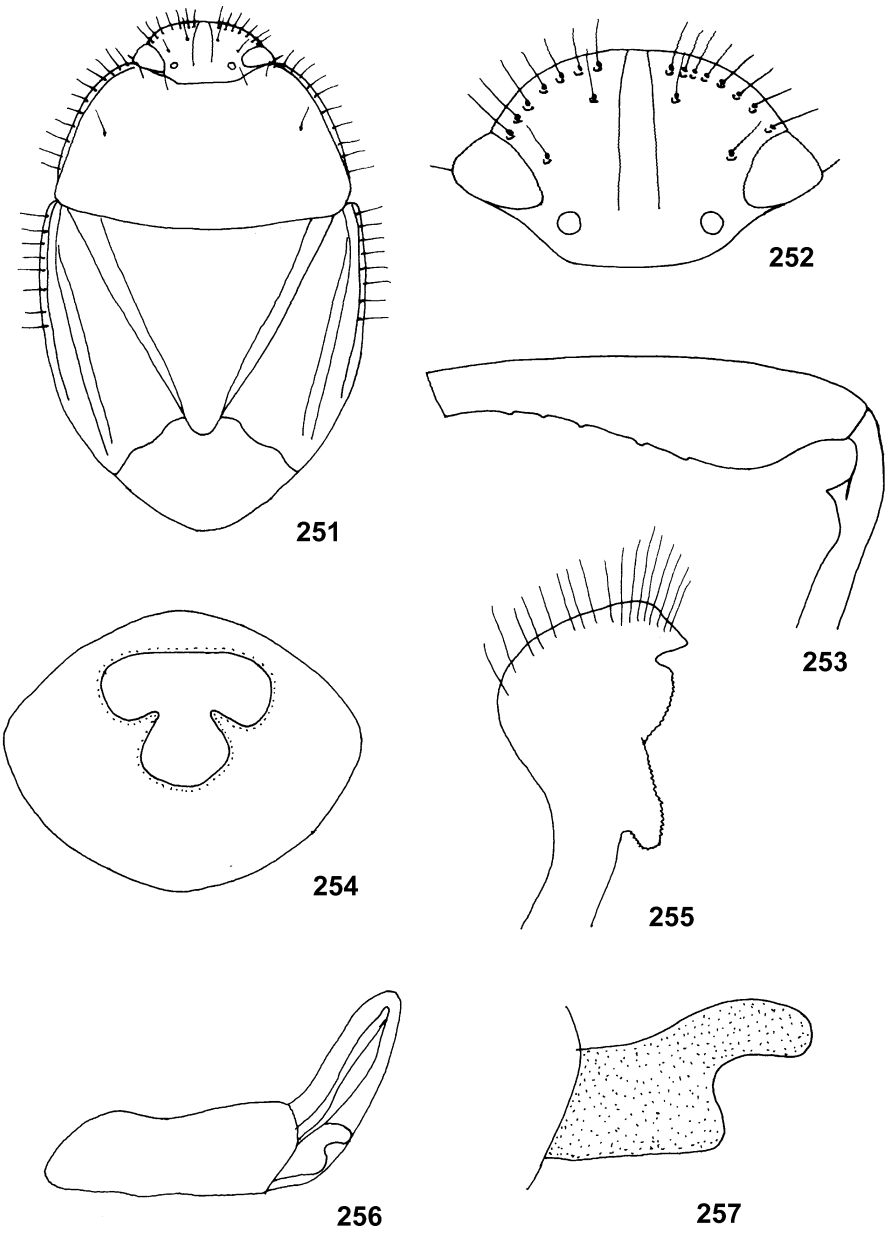
(Figs 251-257)

Cydnus piceus WESTWOOD, 1837: 5 [name only], 18.
Cydnus dilatatus SIGNORET, 1881: 631; LETHIERRY & SEVERIN 1893: 66 (syn. by LIS 1999a: 476).
Acatalectus piceus: DALLAS 1851: 123; DOHRN 1859: 9; WALKER 1867: 165.
Adrisa picea: STÅL 1876: 20; LETHIERRY & SEVERIN 1893: 63; DISTANT 1900: 820.
Macroscytus dilatatus: LIS 1995b: 144.
Macroscytus piceus: LIS 1995b: 145, 1999a: 476.

DESCRIPTION

Body 6.08-8.75 mm in length, 3.68-5.32 mm in width, from castaneous to black, posterior margin of pronotum sometimes slightly lighter in shade.

Head dorsally striated and wrinkled, at first glance looking impunctate, but bearing numerous hardly visible punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with 4-10 (usually 6-9)



251-257. *Macroscytus piceus* (WESTW.): 251 - body outline; 252 - head; 253 - male posterior femur and base of tibia; 254 - male genital capsule, dorsal view; 255 - paramere; 256 - penis; 257 - second conjunctival appendage in penis

setigerous punctures bearing long hair-like setae (Fig. 252); ocular index 2.38-2.90; interocellar index 4.0-7.0; length of antennal segments (in mm): 0.26-0.45 : 0.37-0.57 : 0.34-0.62 : 0.37-0.46 : 0.40-0.50.

Puncturation of pronotal disc well developed, punctures coarse and large, better visible behind calli; transverse discal impression behind calli absent or very shallow; lateral margins of pronotum with 10-15 submarginal setigerous punctures bearing long hair-like setae (Fig. 251). Anterior convexity of propleuron alutaceous, its anterior half distinctly punctate; posterior convexity with a few large punctures close to propleural depression, the latter densely and coarsely punctate.

Scutellar disc with large crowded punctures, except basal fourth and extreme apex.

Mesocorial disc densely and evenly punctate; exocorium densely punctate; costa broad, flat, separated from exocorium in its basal two thirds, and bearing 7-13 setigerous punctures (Fig. 251).

Male hind femora with a few more or less visible denticles, subapical teeth absent (Fig. 253); male hind tibia with large subbasal tooth (Fig. 253); female hind tibia and femur simple.

Abdominal sterna alutaceous, more or less polished, each segmental suture accompanied by a row of punctures, median parts of sterna impunctate, lateral thirds with numerous large punctures.

Male genitalia as in Figs 254-257.

TYPE DATA

Lectotype female of *Cydnus piceus* WESTWOOD (designated by LIS 1995b: 145): N[ova] H[ollandia] (OXUM). Lectotype male of *Cydnus dilatatus* SIGNORET (designated by LIS 1995b: 144): Australia, Somerset (NHMW).

MATERIAL EXAMINED

Lectotype of *Cydnus piceus*, Lectotype of *Cydnus dilatatus*, and 140 other specimens: **Australia**: Western Australia, Yanchep, 32m. N. of Perth, 1 ex. (BMNH); Western Australia, Yardie Ck., Carnarvon, 3 exx. (NMV, UO); Western Australia, Carnarvon, 6 exx. (NMV, UO); Western Australia, Bungabiddy Rockhole, Walter James Ra., 3 exx. (WAM, UO); Western Australia, Irrunytju Rockhole, Hinckley Range, 3 exx. (WAM, UO); Western Australia, Mt Yokine, 2 exx. (NMV); Western Australia, 4 km SW Giles Creek, X-ring, Giles-Docker R Rd., 1 ex. (WAM); Western Australia, Nullagine, 1 ex. (WAM); Western Australia, Roebuck Bay, 1 ex. (BMNH); Western Australia, Enneaba, 1 ex. (WAM); Northern Territory, 2.8 mls S. of Renner Springs, 12 exx. (SAM, UO); Northern Territory, Kings Canyon, George Gill Range, 5 exx. (NTM, UO); Northern Territory, Junction of Arnhem Hwy & Oenpelli Road, 2 exx. (NTM); Northern Territory, South Attack Ck, 6 exx. (NTM, UO); Northern Territory, Attack Ck., 2 exx. (NTM); Northern Territory, Murgenella, 3 exx. (NTM, UO); Northern

Territory, 1 km W of Baralili Ck, crossing on Arnhem Hwy nr Jabiru, 2 exx. (NTM); Northern Territory, White Range, Arltunga, 3 exx. (NTM, UO); Northern Territory, 1 km N of Barrow Creek, 1 ex. (NTM); Northern Territory, Groote, Eylandt, 1 ex. (NTM); Northern Territory, Groote, Eylandt, 1 ex. (BMNH); Northern Territory, Kakadu NP., c. 1 km S of Arnhem Hwy on Pine Creek Rd., 1 ex. (NTM); Northern Territory, Corndorl billabong nr Jabiru, 1 ex. (NTM); Northern Territory, 9 km N by E of Mudginberri, 4 exx. (NTM, UO); Northern Territory, Swim Ck., Crossing Point Stuart Stn., 1 ex. (NTM); Northern Territory, Koongara, 15 km E of Mt. Cahill, 2 exx. (NTM); Northern Territory, Cooper Ck., 15 km S by W of Nimbuwah Rock, 1 ex. (NTM); Northern Territory, 1km N of Cahills Crossing, East Alligator R., 1 ex. (NTM); Northern Territory, Melville Island, Pularumpi, 4 exx. (NTM, UO); Northern Territory, Nourlangie Ck., 8 km N of Mt. Cahill, 1 ex. (NTM); Northern Territory, 4.6 km S of Renner Springs, 2 exx. (SAM); Northern Territory, Elliot, 3 exx. (NTM, UO); Northern Territory, Roderick Creek, Gregory N.P., 1 ex. (NTM); Northern Territory, Keep River NP., Gorge carpark, 1 ex. (NTM); Northern Territory, Ooraminna Rockhole, 50 km SSE Alice Springs, 1 ex. (NTM); Northern Territory, Green Ant Ck., 40ml. S of Adelaide River, 1 ex. (NTM); Northern Territory, Elsey Ck., 10ml. E of Mataranka on Roper Bar Rd., 1 ex. (NTM); South Australia, 22 km WN.V of Moralana HS, 2 exx. (SAM); South Australia, 10 km NW Maynards Well. Nthn Flinders Rgs., 2 exx. (SAM); South Australia, Flinders Rg., Brachina Gorge, 2 exx. (SAM); South Australia, Mudla Bore, 35 km NNE Billa Kalina HS, 3 exx. (SAM); South Australia, Coopers Creek, Ferry Crossing, 2 exx. (SAM); South Australia, Levi Crk., 8 km NW Big Perry Spring, 20 exx. (SAM, UO); South Australia, L. Torrens nr. Beda Hill. 2 exx. (SAM); South Australia, Mid E of L. Frome coast, Sandhills, Desert Oak., 3 exx. (SAM, UO); South Australia, 10 km ENE Stuart Crk. HS., 1 ex. (SAM); South Australia, Mt. Remarkable, 2 exx. (SAM); South Australia, Margaret R., 10 km SE Coward Springs, 1 ex. (SAM); South Australia, Ediacara, 1 ex. (SAM); Queensland, Telegraph Line Crossing, Jardine R., Cape York, 1 ex. (UQIC); Queensland, Bamaga, Cape York, 1 ex. (QMB); Queensland, Moreton Is., 1ex. (QMB).

DISTRIBUTION

Australia (incl. Tasmania), Indonesia (Sumba Island).

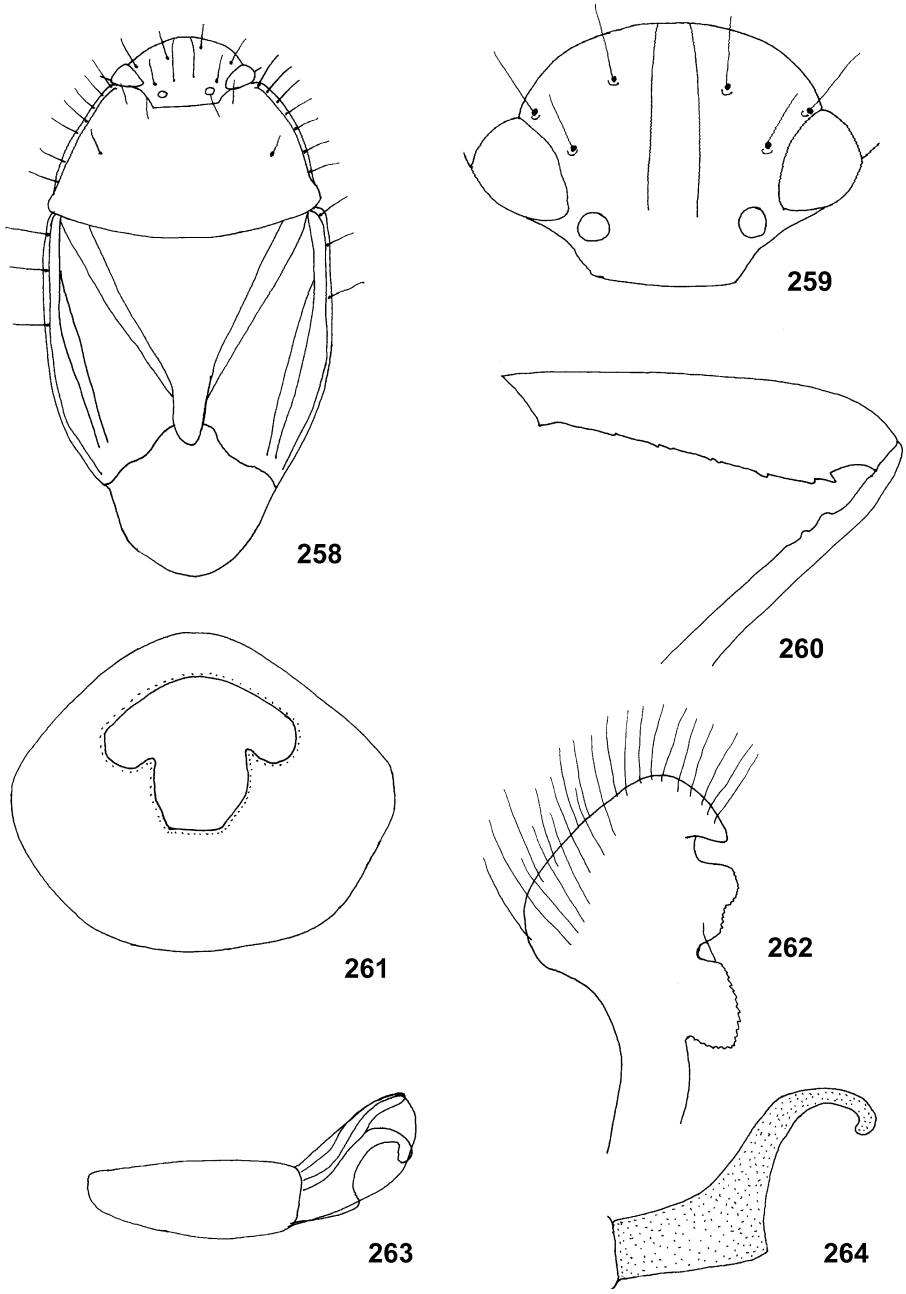
Macroscytus popovi J.A. LIS

(Figs 258-264)

Macroscytus popovi J.A. LIS, 1991c: 213, 1994a: 225.

DESCRIPTION

Body 6.81-9.12 mm in length, 3.87-4.85 mm in width, from castaneous to blackish brown, corium and umbones of pronotum usually slightly paler than scutellum.



258-264. *Macroscytus popovi* J.A. Lis: 258 - body outline; 259 - head; 260 - male posterior femur and base of tibia; 261 - male genital capsule, dorsal view; 262 - paramere; 263 - penis; 264 - second conjunctival appendage in penis

Head dorsally at first glance looking impunctate, but bearing hardly visible tiny punctures; clypeus without subapical setigerous punctures, each paraclypeus submarginally with a single preocular setigerous punctures (Fig. 259); ocular index 2.00-2.40; interocellar index 8.0-12.0; length of antennal segments (in mm): 0.31-0.42 : 0.40-0.49 : 0.49-0.65 : 0.63-0.80 : 0.68-0.92.

Pronotal transverse impression behind calli more or less shallow, with a row of punctures interrupted medially; lateral margins with 5-8 submarginal setigerous punctures bearing long hair-like setae (Fig. 258); puncturation of anterior and posterior lobe of pronotal disc clearly visible. Propleural depression and basal part of posterior convexity with numerous punctures, anterior convexity alutaceous.

Scutellum with numerous irregularly scattered punctures, apex and anterolateral angles impunctate.

Corium with distinct punctures smaller than those on pronotum and scutellum; clavus with one complete and one or two partial rows of punctures; mesocorial disc almost evenly punctate; costa narrow, moderately convex, almost entirely separated from exocorium, bearing 2-4 setigerous punctures (Fig. 258).

Male hind femora with distinct subapical tooth on dorsal margin and several smaller teeth on the ventral, hind tibiae with small subbasal tubercles (Fig. 260); female hind femora with small subapical tooth on dorsal margin, ventral margin with setae only, hind tibiae without tubercles.

Abdominal sterna smooth or weakly wrinkled laterally, with tiny punctures along sutures; sterna III and IV with a few tiny punctures anterior and posterior to spiracles, sterna V-VII with tiny punctures only posterior to spiracles.

Male genitalia as in Figs 261-264.

TYPE DATA

Holotype male: Vietnam, prov. Kien Giang, isl. Tho Tu (UO).

MATERIAL EXAMINED

Holotype, 1 paratype and 14 other specimens: **China**: Prov. Fo-kien, 1 ex. (ZIZM). **Laos**: Mg. Xoi Prov., 1 ex. (NNML). **Vietnam**: Lao-Kay, Tonkin, paratype (MNHN); Tonkin, Ha-Giang, 1 ex. (MNHN); Prov. Ha-Tinh, foretsiere Hüöng-sön, 4 exx. (HNHM, UO); Moc Chau, 2 exx. (HNHM, UO); Ha Son-Binh, 10 km SW Hoa-Binh, 1 ex. (UO); Poulocondore, 1 ex. (NNML); Nha-Trang, South Annam, 3 exx. (ZlP, UO).

DISTRIBUTION

China (Fujian), Laos, Vietnam.

Macroscytus privignus HORVÁTH

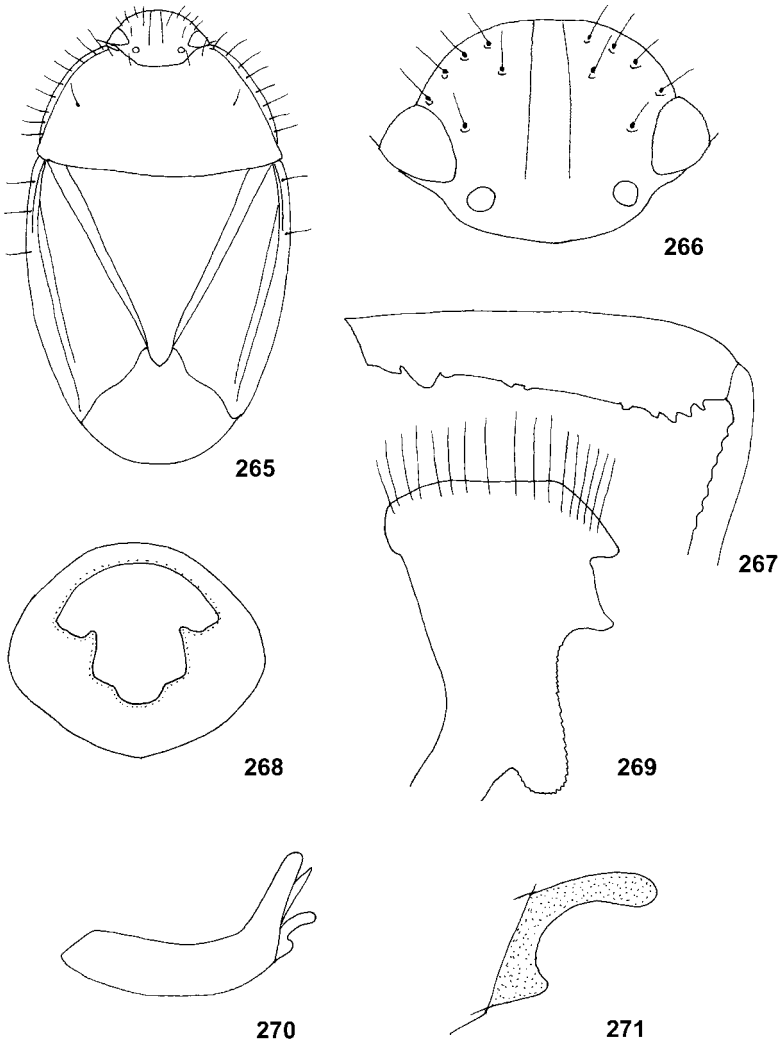
(Figs 265-271)

Macroscytus privignus HORVÁTH, 1919: 237; CHINA 1924: 427; LIS 1999d.

DESCRIPTION

Body 8.39-9.85 mm in length, 4.60-5.45 mm in width, from castaneous to black, corium usually paler than pronotum and scutellum, at least costa and a part of exocorium brown or yellowish brown, sometimes also apices of pronotal umbones pale brown or yellowish brown.

Head dorsally alutaceous and impunctate except for setigerous punctures and sometimes a few very small punctures laterally; clypeus subapically without a



265-271. *Macroscytus privignus* HORV.: 265 - body outline; 266 - head; 267 - male posterior femur and base of tibia; 268 - male genital capsule, dorsal view; 269 - paramere; 270 - penis; 271 - second conjunctival appendage in penis

pair of setigerous punctures, each paraclypeus submarginally with 2-5 setigerous punctures bearing long hair-like setae (Fig. 266); ocular index 2.10-2.70; interocellar index 7.0-12.0; length of antennal segments (in mm): 0.34-0.40 : 0.45-0.60 : 0.55-0.69 : 0.76-0.88 : 0.77-0.88.

Puncturation of pronotal disc well visible, punctures small, better visible behind head and calli, discal transverse impression behind calli absent or very shallow; lateral margins of pronotum with 6-10 submarginal setigerous punctures bearing long hair-like setae (Fig. 265). Anterior convexity of propleuron impunctate or almost impunctate, posterior convexity distinctly coarsely punctate close to propleural depression, the latter with a band of coarse punctures.

Scutellar disc densely punctate with almost evenly spaced punctures larger than those on pronotum, anterolateral angles of a disc impunctate.

Corium densely punctate; clavus with one complete and two incomplete rows of punctures; mesocorial disc densely and almost evenly punctate; exocorium more or less densely punctate; costa flattened, separated from exocorium only in its basal third, costal margin with 2-3 setigerous punctures (Fig. 265).

Femora from castaneous to almost black, tibiae yellow or yellowish brown, tibial spines dark brown or black; male hind femur with a row of teeth on its dorsal margin, among them three subapical, ventral margin with a row of well visible teeth, among them one large subbasal and three subapical (Fig. 267); male hind tibia with a row of very small denticles (Fig. 267); female hind femora with a row of setae on margins, female tibiae simple.

Abdominal sterna more or less polished, almost totally impunctate, bearing only a patch of few small punctures posterior to spiracles.

Male genitalia as in Figs 268-271.

TYPE DATA

Lectotype male (designated by LIS 1999d): Madagascar, Finarantsoa (HNHM).

MATERIAL EXAMINED

Lectotype, and 20 other specimens: **Madagascar**: Madagascar, 3 exx. (MNHN, UO); Madagascar Sambirano, Nord-est de Maromandia, Base du Manongarivo, 2 exx. (MNHN, UO); Madagascar Sud, plateau Mahafaly, 11/12 km Ouest d'Ankalirano, 1 ex. (MNHN); Madagascar Ouest, Ankarafantsika, Ampijoroa, 1 ex. (MNHN); N. d'Ivohibe, Station Forest d'Angodongodona, 1 ex. (MNHN); Région de Sud, Pays Androy, Jehara, 1 ex. (MNHN); Région de Sud, Andrahomana, 1 ex. (UO); Province de Fort-Dauphin, Antanimora, 1 ex. (MNHN); Lambomakandro, Tuléar, 1 ex. (MNHN); Ikongo, 1 ex. (MNHN); Périnet, 1 ex. (ZIP); Mahajanga prov., Mahajamba riv., Ampatika env. 2 exx. (USMB, UO); Mahajanga env., Mahajanga distr., 2 ex. (USMB); Mahajanga distr., Ambodimanga env., 2 exx. (USMB, UO).

DISTRIBUTION

Madagascar, Rodriguez.

Macroscytus pseudaustralis J.A. Lis
(Figs 272-278)

Macroscytus pseudaustralis J.A. Lis, 1999a: 478.

Description

Body 6.93-7.38 mm in length, 4.16-4.55 mm in width, dark castaneous, posterior margin of pronotum narrowly yellowish brown, corium more yellow-brown in shade than scutellum, punctate with dark punctures.

Head dorsally slightly wrinkled and bearing numerous small, almost evenly spaced punctures; clypeus subapically with a pair of setigerous punctures bearing long hair-like setae, each paraclypeus submarginally with a row of 8-9 setigerous punctures bearing long hair-like setae (Fig. 273); ocular index 2.69-2.80; interocellar index 7.1-9.3; length of antennal segments (in mm): 0.35 : 0.42-0.44 : 0.38-.40 : 0.53-0.54 : 0.52-0.54.

Pronotal disc with scattered punctures or different size, calli impunctate; transverse discal impression behind calli shallow and almost indistinct, bearing medially interrupted row of several coarse punctures; lateral margins of pronotum with 16-21 submarginal setigerous punctures bearing long hair-like setae (Fig. 272). Anterior convexity of propleuron impunctate, except for a few small punctures anteriorly, posterior convexity with a few large punctures close to propleural depression, the latter with a row of well separated coarse punctures.

Scutellar disc with almost evenly spaced punctures larger than those on pronotum; basal fourth of scutellar disc impunctate.

Mesocorial disc evenly punctate with exception of its middle fifth; exocorium with very dense puncturation; costa broad and flat, separated from exocorium only in its basal two thirds, costal margin with 8-11 setigerous punctures bearing long hair-like setae (Fig. 272).

Femora castaneous, tibiae brown or yellowish brown; male hind femur with 2 subapical teeth on ventral margin, and a row of denticles on dorsal margin (Fig. 274); female hind femur with a row of small denticles on dorsal margin; male hind tibia with large subbasal lobe-like denticle and numerous smaller tubercles (Fig. 274); female hind tibia simple.

Abdominal sterna almost totally impunctate, except for rows of punctures parallel to segmental sutures, and longitudinal patches of punctures posterior to each spiracle.

Male genitalia as in Figs 275-278.

Type data

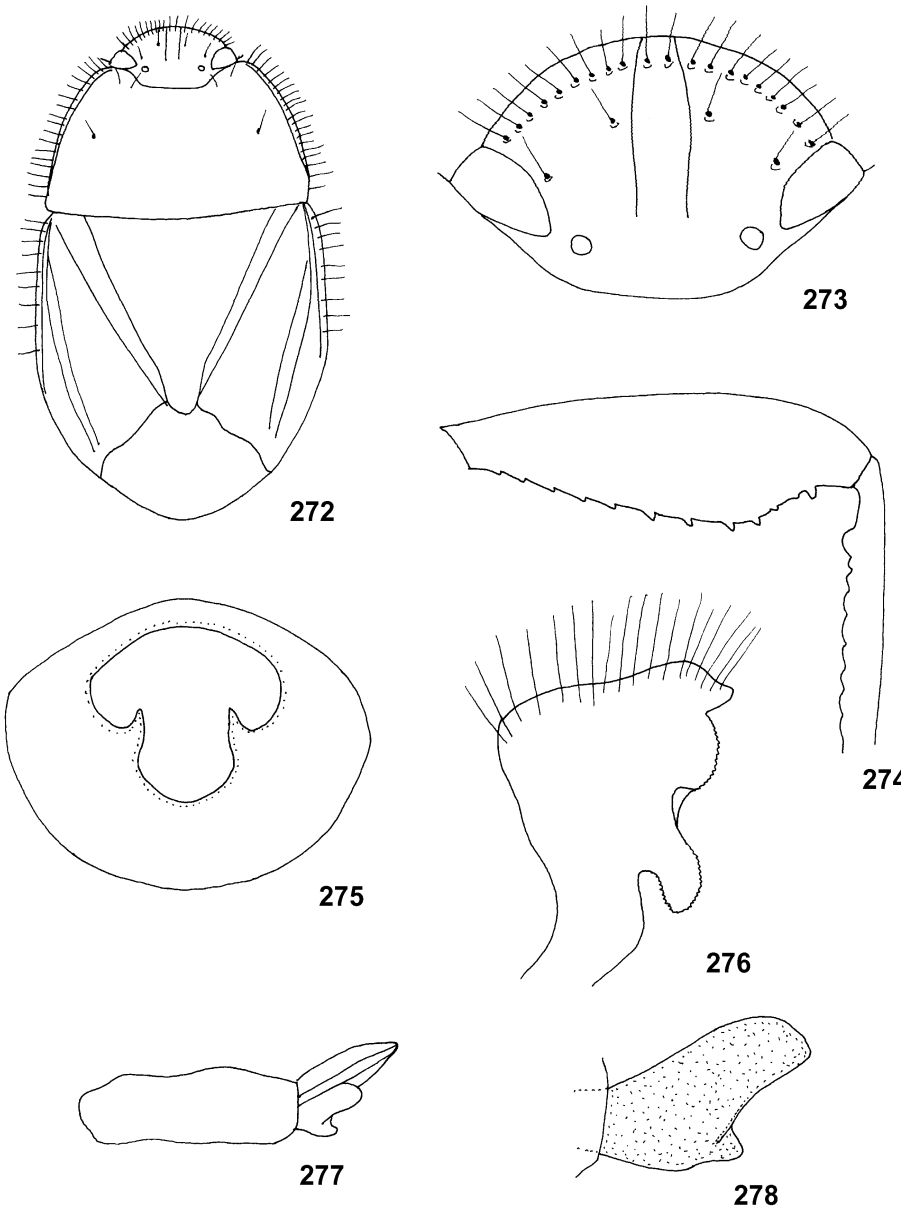
Holotype male: Australia, Western Australia, Yardie Creek (WAM).

Material examined

Holotype, and 1 paratype: **Australia**: Western Australia, Southern Cross, 1 paratype (WAM).

Distribution

Australia.



272-278. *Macroscytus pseudaustralis* J.A. Lis: 272 - body outline; 273 - head; 274 - male posterior femur and base of tibia; 275 - male genital capsule, dorsal view; 276 - paramere; 277 - penis; 278 - second conjunctival appendage in penis

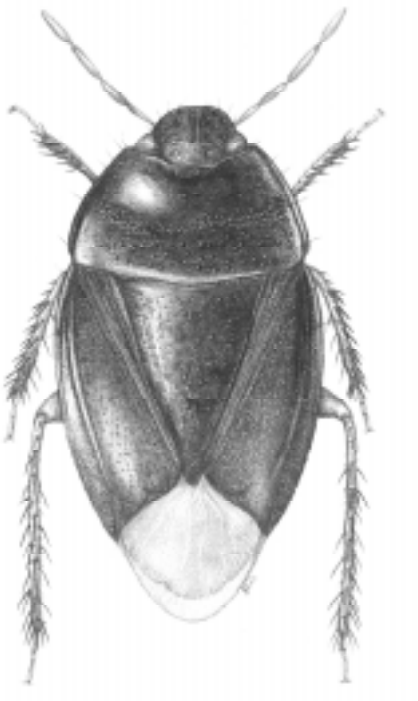
Macroscytus reflexus SIGNORET
(Figs 279-282)

Macroscytus reflexus SIGNORET, 1883a: 466; LETHIERRY & SEVERIN 1893: 71.
Macroscytus acutus SIGNORET, 1883a: 469; LETHIERRY & SEVERIN 1893: 70; JEANNEL 1913: 15; LINNAVUORI 1993: 25, **syn. n.**
Macroscytus excavatus SIGNORET, 1883a: 471; LETHIERRY & SEVERIN 1893: 70; MANCINI 1953: 203, 1954: 157, 1956: 95; WAGNER 1963: 91; MEDLER 1980: 122; LINNAVUORI 1977: 40, 1980: 35, 1993: 22; LIS 1991d: 176, **syn. n.**
Macroscytus inermipes HORVÁTH, 1904: 253; BERGROTH 1908: 149; HORVÁTH 1919: 237; LINNAVUORI 1977: 40 (syn. with *M. excavatus* by LINNAVUORI 1993: 22), **syn. n.**

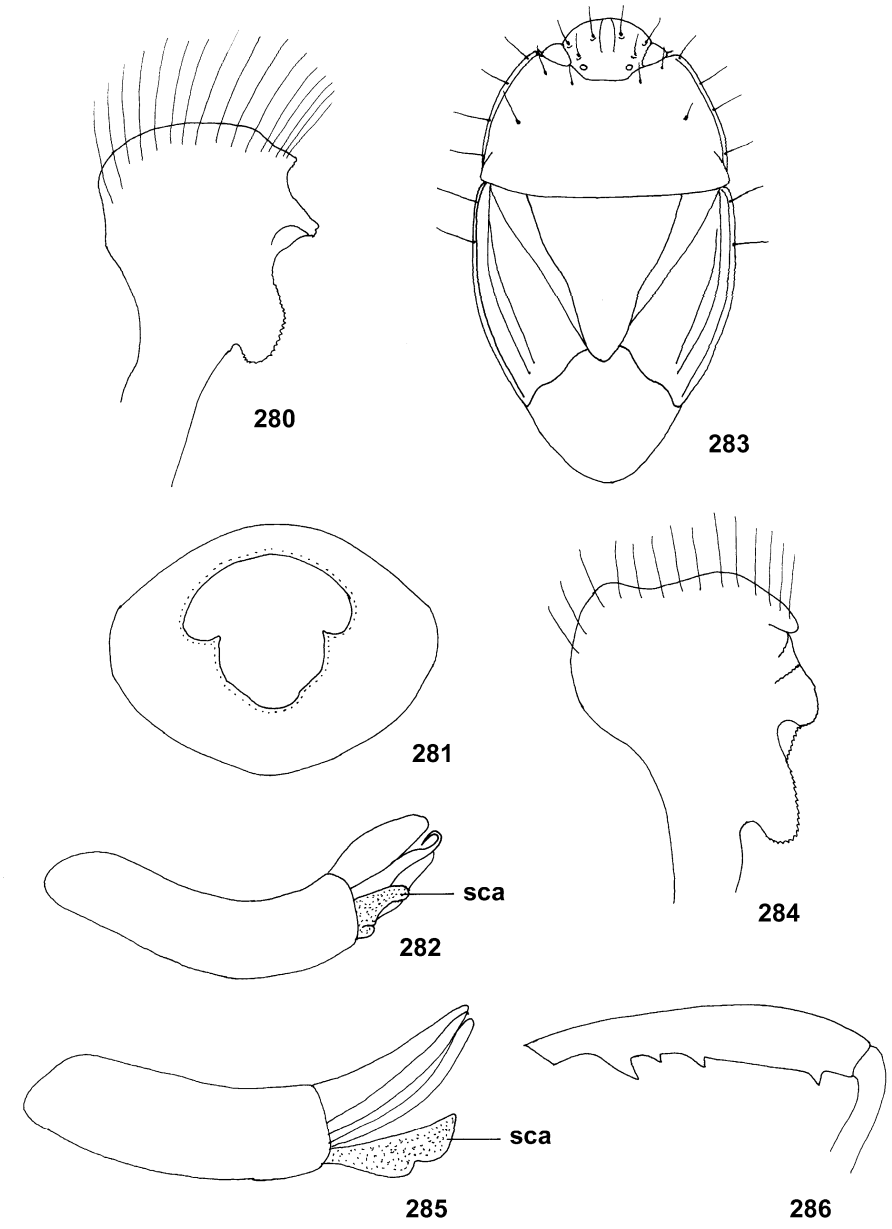
DESCRIPTION

Body 9.25-11.90 mm in length, 5.04-6.59 mm in width, from yellowish brown to almost black, sometimes corium slightly paler than pronotum and scutellum.

Head dorsally at first sight looking impunctate, but bearing hardly visible tiny punctures, lateral parts of paraclypei wrinkled; clypeus subapically without setigerous punctures, each paraclypeus submarginally with 2-4 setigerous puncture bearing long hair-like setae (Fig. 279); ocular index 2.10-2.64; interocellar index 4.0-8.5; length of antennal segments (in mm): 0.34-0.63 : 0.59-0.76 : 0.73-0.85 : 0.90-1.13 : 0.94-1.15.



279. *Macroscytus reflexus* SIGN., dorsal habitus



280-282. *Macroscytus reflexus* SIGN., 283-286. *Macroscytus subaeneus* (DALL.).: 280, 284 - paramere; 281 - male genital capsule, dorsal view; 282, 285 – penis (sca – second conjunctival appendage); 283 - body outline; 286 - male posterior femur and base of tibia

Puncturation of pronotal disc more or less dense, punctures small, clearly visible; calli, umbones and posterior fourth of pronotal disc impunctate; discal transverse impression behind calli shallow, developed only laterally, usually acompanied by a row of coarse punctures; lateral margins of pronotum with 6-8 submarginal setigerous punctures bearing long hair-like setae (Fig. 279). Anterior convexity of propleuron apically punctate with small punctures, posterior convexity distinctly anteriorly punctate with large punctures, propleural depression with a band of coarse punctures and wrinkles.

Scutellar disc punctate with almost evenly spaced punctures.

Corium densely punctate; clavus with one complete and two partial rows of punctures; mesocorial disc densely and almost evenly punctate; exocorium densely punctate; costa flattened, basally expanded, separated from exocorium only in its basal half, costal margin with 2 setigerous punctures bearing long hair-like setae (Fig. 279).

Male mid femur with a row of small teeth; male hind femur with a row of well visible teeth and denticles on margins, subbasal and subapical teeth large (variability of edentation was presented by LINNAVUORI, 1993), male hind tibia with a row of numerous denticles; female hind femur with small (sometimes indistinct) subapical tooth, female tibia simple.

Abdominal sterna more or less polished, punctate only around spiracles and trichobothria.

Male genitalia as in Figs 280-282.

TYPE DATA

Syntype(s) male(s) of *Macroscytus reflexus* SIGNORET: South Africa (lost or destroyed). Neotype male (present designation) of *Macroscytus reflexus* SIGNORET: South Africa, Natal, Empangeni area, 28°45'S 31°55"E, 20-II-86, 110m, P. Reavell, light (NMP).

Lectotype female (designated by LINNAVUORI 1993: 25) of *Macroscytus acutus* SIGNORET: Kenya, Mombasa (BMNH). Lectotype male (designated by LINNAVUORI 1993: 22, as Holotype) of *Macroscytus excavatus* SIGNORET: East Africa, Lac Hyarsa [=Nyassa Lake] (BMNH). Lectotype male (designated by LINNAVUORI 1977: 41) of *Macroscytus inermipes* HORVÁTH: Sao Thomé (HNHM).

MATERIAL EXAMINED

Neotype of *Macroscytus reflexus*, Lectotype of *Macroscytus acutus*, Lectotype of *Macroscytus excavatus*, Lectotype of *Macroscytus inermipes*, and 229 other specimens: **Angola**: 1 ex. (MNHN). **Burkina Faso**: Ouagadougou, 1 ex. (ZIP). **Cameroon**: Nkolbisson, 3 exx. (MNHN, UO); Yaoundé, 1 ex. (MNHN). **Central African Republic**: La Maboke, 16 exx. (MNHN, UO); Boukoko, 3 exx. (MNHN). **Congo**: Bouenza, 1 ex. (MNHN); Brazzaville, 85 exx. (HNHM, MNHN, UO); Sibiti, 1 ex. (MNHN); Odzala, 1 ex. (MNHN); Dimonika, Mayumbe, 7 exx. (MNHN). **Eritrea**: Ghinda, 2 exx. (NNML, ZIP). **Ethiopia**: Bahor Dar, 10 exx.

(SMNS, UO); Gidole, Prov. Gamu Gofa, 5 exx. (SMNS, UO); Wollo-Ataye, 1 ex. (MNHN); Kébré-Mengist, 1 ex. (MNHN); Lake Langano, Shoa, 3 exx. (ZSMC). **Gabon**: Ovenda near Libreville, 1 ex. (ZIZM). **Guinea**: Mt. Nimba, Plateau de Zouguepo, 1 ex. (MNHN). **Ivory Coast**: Lamto, 1 ex. (MNHN). **Kenya**: Malindi, 3 exx. (MNHU); Mombasa, 2 exx. (MNHU, SMNS); Mt. Elgon National Park, near Chapnyalil Cave, 1 ex. (HNHM); Ukunda, Diani Beach, 1 ex. (HNHM); Tsavo West National Park, 1 ex. (HNHM). **Liberia**: 1 ex. (ZIZM). **Mozambique**: 1 ex. (ZSMC); Beira, 1 ex. (MNHN); Lourenco Marques, Matola, Vila Salazar, 1 ex. (JEC). **Namibia**: Kavango, Popa-Falls, 6 exx. (MNHU, MNHU, UO); East Caprivi, Katima Mulilo, 3 exx. (MNHU, UO). **Ruanda**: Kissenyi, 1 ex. (MNHN). **Senegal**: Kedougou, 2 exx. (MNHN). **Sierra Leone**: Makeni, 12 exx. (MZLU, UO). **South Africa**: Natal, Empangeni area, 14 exx. (NMP, UO); Natal, Kube Yini Game Reserve, 3 exx. (NMP, UO); Natal, Mkuzi Game Reserve, 7 exx. (MNHU, NMP, UO). **St. Thomé Island**: Bombaim, 1 ex. (USMB). **Tanzania**: Arusha distr., Naberera env., 3 exx. (USMB, UO); Morogoro, 4 exx. (HNHM, UO). **Togo**: Lama Kara, 1 ex. (ZIZM). **Uganda**: Nyabyeya, 3 exx. (MNHU, UO). **Zambia**: Chisamba nr Lusaka, 1 ex. (NMP); Kafue National Park, Chunga Camp, 1 ex. (MNHU); 5 km S Choma, 1 ex. (MNHU). **Zimbabwe**: Matabeleland, Matopos National Park, 3 exx. (MNHU, UO); Zimbabwe Ruins, 1 ex. (NMP); Kariba, 5 exx. (JEC, UO).

DISTRIBUTION

Angola, Burkina Faso (first record), Cameroon, Central African Republic, ?Chad, Congo, Eritrea, Ethiopia, Gabon (first record), Gambia, Ghana, Guinea (first record), Ivory Coast, Kenya, Liberia (first record), Mozambique (first record), Namibia (first record), Nigeria, Ruanda (first record), Senegal (first record), Sierra Leone, South Africa, St. Thomé Island, Sudan, Tanzania, Togo (first record), Uganda, Zaire, Zambia, Zimbabwe.

REMARK

The type material of *Macroscytus reflexus* from South Africa was not found in the collections containing SIGNORET's specimens (it was apparently lost or destroyed). Since the other three species (*Macroscytus acutus*, *M. excavatus*, *M. inermipes*) are found to be conspecific with the former, it was necessary to designate a neotype for *M. reflexus*.

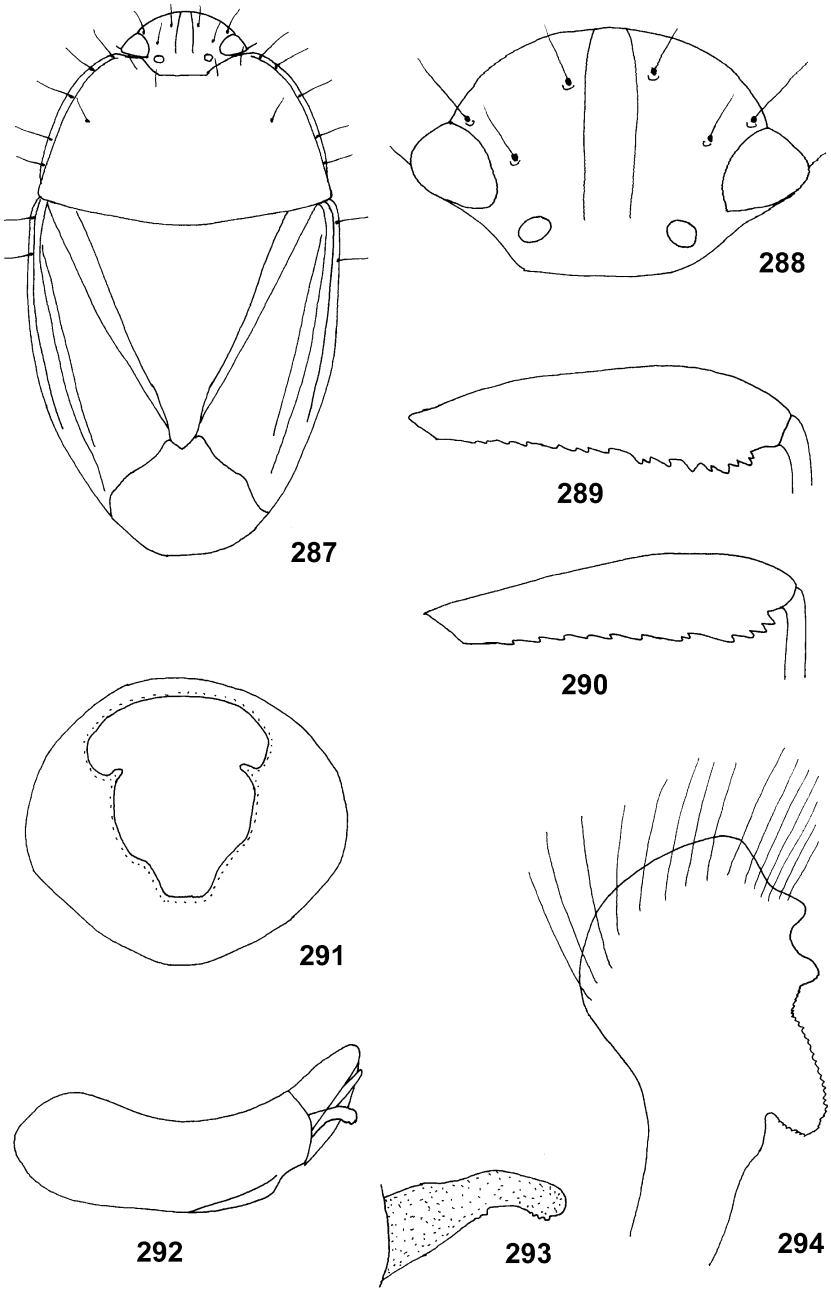
Macroscytus ruficornis SIGNORET

(Figs 287-294)

Macroscytus ruficornis SIGNORET, 1883a: 471; LETHIERRY & SEVERIN 1893: 71; LINNAVUORI 1993: 27 [as a species of uncertain generic position].

Macroscytus punctiventris SIGNORET, 1883a: 473; LETHIERRY & SEVERIN 1893: 71; LINNAVUORI 1993: 24, **syn. n.**

Macroscytus rubiginosus STICHEL, 1922: 66, **syn. n.**



287-294. *Macroscytus ruficornis* SIGN.: 287 - body outline; 288 - head; 289, 290 - male posterior femur and base of tibia; 291 - male genital capsule, dorsal view; 292 - penis; 293 - second conjunctival appendage in penis; 294 - paramere

DESCRIPTION

Body 9.46-12.00 mm in length, 5.44-6.69 mm in width, from castaneous to dark castaneous, corium usually paler than pronotum and scutellum.

Head dorsally punctate and wrinkled, especially in lateral parts of paraclypei; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture bearing long hair-like seta (Fig. 288); ocular index 2.30-2.62; interocellar index 4.0-6.0; length of antennal segments (in mm): 0.40-0.49 : 0.54-0.71 : 0.76-0.97 : 1.00-1.19 : 1.07-1.21.

Puncturation of pronotal disc well visible, dense, punctures small, calli and posterior fourth of pronotal disc impunctate; transverse discal impression behind calli absent or very shallow, developed only laterally, calli somewhat elevated; lateral margins of pronotum with 4-6 submarginal setigerous punctures bearing long hair-like setae (Fig. 287). Anterior convexity of propleuron laterally and apically punctate with numerous small punctures, posterior convexity distinctly coarsely punctate with punctures larger than those of anterior convexity, propleural depression with a band of coarse punctures and wrinkles.

Scutellar disc densely punctate with almost evenly spaced punctures smaller than those on pronotum and corium, basal fifth and apex impunctate.

Corium densely punctate; clavus with one complete and two partial rows of punctures; mesocorial disc densely and almost evenly punctate; exocorium densely punctate; costa somewhat flattened, separated from exocorium only in its basal two thirds, costal margin with 2 setigerous punctures (Fig. 287).

Male mid femur with a row of small teeth; male hind femur with a row of well visible teeth and denticles on margins, subapical teeth well developed (Figs 289-290); male hind tibia without denticles; female hind femora with small subapical tooth, female tibia simple.

Abdominal sterna polished, more or less densely punctate in lateral thirds.

Male genitalia as in Figs 291-294.

TYPE DATA

Syntype(s) of *Macroscytus ruficornis* SIGNORET: Guinea (lost). Neotype male (present designation) of *Macroscytus ruficornis* SIGNORET: Guinea, Coyah; III-V.1967, leg. Ferenczy (HNHM).

Syntype of *Macroscytus punctiventris* SIGNORET: Kenya, Mombasa (BMNH, lost).

Syntypes of *Macroscytus rubiginosus* STICHEL: Cameroon, Joko (not located, lost or destroyed).

MATERIAL EXAMINED

Neotype of *Macroscytus ruficornis*, and 16 other specimens: **Benin**: Dahomey, Ouidam, 1 ex. (MNHN); Plat. De Zaguanado & Ketou, 1 ex. (MNHN); Palteau de Kaguanado, 1 ex. (MNHN). **Cameroon**: Nanga Eboko, 1 ex. (HNHM). **Central African Republic**: Lamaboké, 3 exx. (MNHN, UO). **Congo**: Sanga, 1 ex. (MNHN). **Guinea**: Mt. Nimba, Savana de Serengbara, 2 exx. (MNHN); Mt.

Nimba, Bord du Zougué, 1 ex. (MNHN); Mt. Nimba,, 3 exx. (MNHN, UO). **Ivory Coast**: Lamto, Toumodi, 1 ex. (MNHN). **Togo**: Bismarckburg (=Yegue), 1 ex. (MNHN).

DISTRIBUTION

Benin (first record), Cameroon, Central African Republic (first record), Congo (first record), Guinea, Ivory Coast, Kenya, Nigeria, Sierra Leone, Tanzania (Zanzibar), Togo.

REMARKS

I have not been able to trace the type material of *Macroscytus ruficornis* from Guinea in the collections containing SIGNORET's specimens. Nevertheless, only two species of *Macroscytus* are known from Guinea – *M. brunneus* and another one that should be treated as *M. ruficornis* (the latter described originally just from this country). Since the type material of *M. ruficornis* was apparently lost or destroyed, and it was hitherto treated as a species of uncertain position it was necessary to designate a neotype for it.

Syntypes of two other species, namely *Macroscytus punctiventris* from Kenya and *M. rubiginosus* from Cameroon were also lost or destroyed (LINNAVUORI, 1993; LIS, unpublished data), but original descriptions and distribution data allow to treat both as junior synonyms of *M. ruficornis*.

Specimens from Kilimandjaro recorded by JEANNEL (1913: 15) as *M. ruficornis* represent *Geocnethus nitidus* SIGNORET (see LINNAVUORI 1993).

Macroscytus simulans **J.A. LIS**

(Figs 295-301)

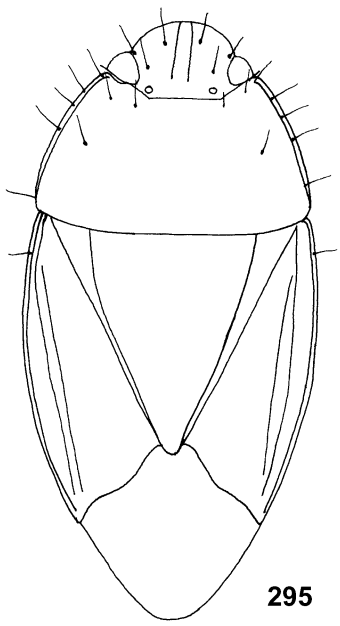
Macroscytus simulans J.A. LIS, 1999d.

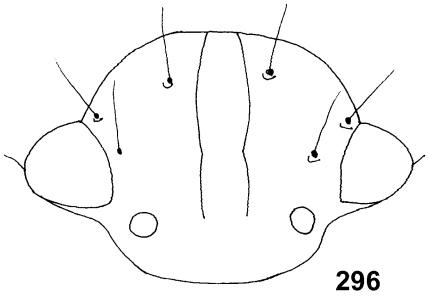
DESCRIPTION

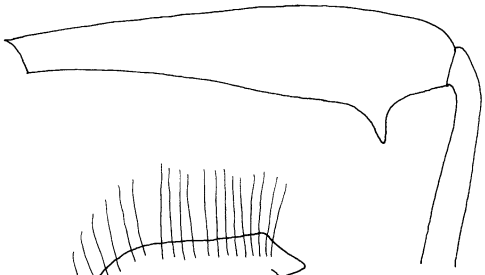
Body 10.34-11.02 mm in length, 5.64-5.99 mm in width, from dark castaneous to black, entire pronotal umbones yellow-brown, thus making pronotal disc sharply bicoloured.

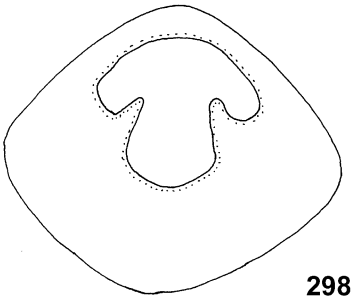
Head dorsally distinctly punctate with large, coarse punctures; clypeus subapically without a pair of setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 296); ocular index 2.60-2.75; interocellar index 4.5-5.6; length of antennal segments (in mm): 0.49-0.53 : 0.72-0.76 : 0.80-0.87, 4th and 5th segment missing.

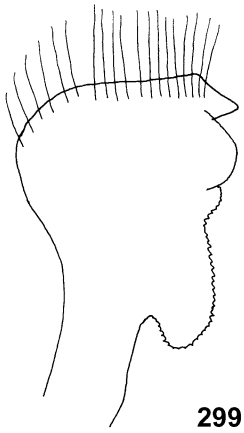
Puncturation of pronotal disc clearly visible, punctures larger than those on head; calli and posterior margin impunctate; transverse discal impression behind calli absent; lateral margins of pronotum with 4-5 submarginal setigerous punctures bearing long hair-like setae (Fig. 295). Anterior convexity of propleuron alutaceous, anteriorly and laterally coarsely punctate with small punctures; pos-

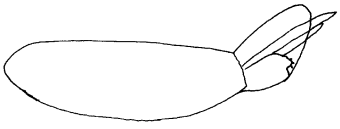


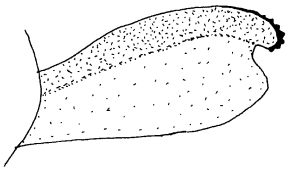












295-301. *Macroscytus simulans* J.A. Lis: 295 - body outline; 296 - head; 297 - male posterior femur and base of tibia; 298 - male genital capsule, dorsal view; 299 - paramere; 300 - penis; 301 - second conjunctival appendage in penis

terior convexity alutaceous, with numerous large punctures; propleural depression with large and coarse punctures.

Scutellum almost evenly punctate, punctures almost of the same size as those on pronotum; antero-lateral angles impunctate.

Clavus with one complete and two partial rows of punctures; mesocorial disc almost evenly punctate, all punctures distinctly smaller than those on scutellum; exocorium distinctly punctate, punctures of the same size as those on mesocorial disc; costa narrow, entirely separated from exocorium, costal margin with a single setigerous puncture bearing long hair-like seta (Fig. 295).

Ventral margin of male hind femur with a subapical denticle, its dorsal margin with large subapical tooth (Fig. 297); male hind tibia without denticles on its inner margin (Fig. 297); ventral margin of female hind femur with small subapical denticle, its dorsal margin with subapical tooth; female hind tibia without denticles on its inner margin.

Abdominal sterna polished, bearing large punctures in the lateral third, around trichobothria and spiracles.

Male genitalia as in Figs 298-301.

TYPE DATA

Holotype male: Madagascar, Tamatave prov., Moramanga env. (USMB).

MATERIAL EXAMINED

Holotype, and 3 paratypes: **Madagascar**: Tamatave prov., Moramanga env., 3 paratypes (USMB, UO).

DISTRIBUTION

Madagascar.

Macroscytus subaeneus (DALLAS)

(Figs 283-286)

Aethus subaeneus DALLAS, 1851: 116; DOHRN 1859: 9; WALKER 1867: 160; STÅL 1876: 26.
Cydnus subaeneus: LETHIERRY & SEVERIN 1893: 68.
Macroscytus subaeneus: DISTANT 1899: 222 [part]; STICHEL 1962: 775 [part]; LIS 1994a: 227.

DESCRIPTION

Body 8.45-9.24 mm in length, 4.70-5.05 mm in width, from dark castaneous to almost black, corium slightly paler than pronotum and scutellum.

Head dorsally at first glance looking impunctate, but bearing hardly visible tiny punctures; clypeus without subapical setigerous punctures, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 283); ocular index 2.30-2.57; interocellar index 6.9-9.0; length of antennal segments (in mm): 0.37-0.46 : 0.42-0.57 : 0.51-0.70 : 0.66-0.85 : 0.80-1.01.

Pronotal transverse impression behind calli absent, disc undivided into lobes, posterior half with more or less broad band of punctures; lateral margins with 3-6 submarginal setigerous punctures (Fig. 283). Propleural depression with numerous coarse punctures.

Scutellum almost impunctate or with a few clearly separated punctures.

Clavus with one complete and two partial rows of punctures; exocorium and mesocorium almost evenly punctate; costa moderately convex, basally flattened, almost entirely separated from exocorium, bearing two setigerous punctures (Fig. 283).

Hind male femur with one large and two small teeth basally and one tooth subapically (Fig. 286).

Abdominal sterna polished and smooth, sometimes slightly wrinkled close to segmental sutures; lateral third of segments finely punctate, and bearing triangular patches of dense tiny punctures posterior to spiracle and several punctures anterior to it.

Male genitalia as in Figs 283-285.

TYPE DATA

Lectotype male (designated by LIS 1994a: 228): Philippines (BMNH).

MATERIAL EXAMINED

Lectotype, and 2 other specimens: **Indonesia**: Flores, Larantoeka, 1 ex. (ZMA). **Thailand**: Siam, 1 ex. (MNHN).

DISTRIBUTION

Indonesia (Flores), Philippines, Thailand.

Records from other countries were based on misidentifications (see LIS 1994a).

Macroscytus tamatavei J.A. LIS

(Figs 302-306)

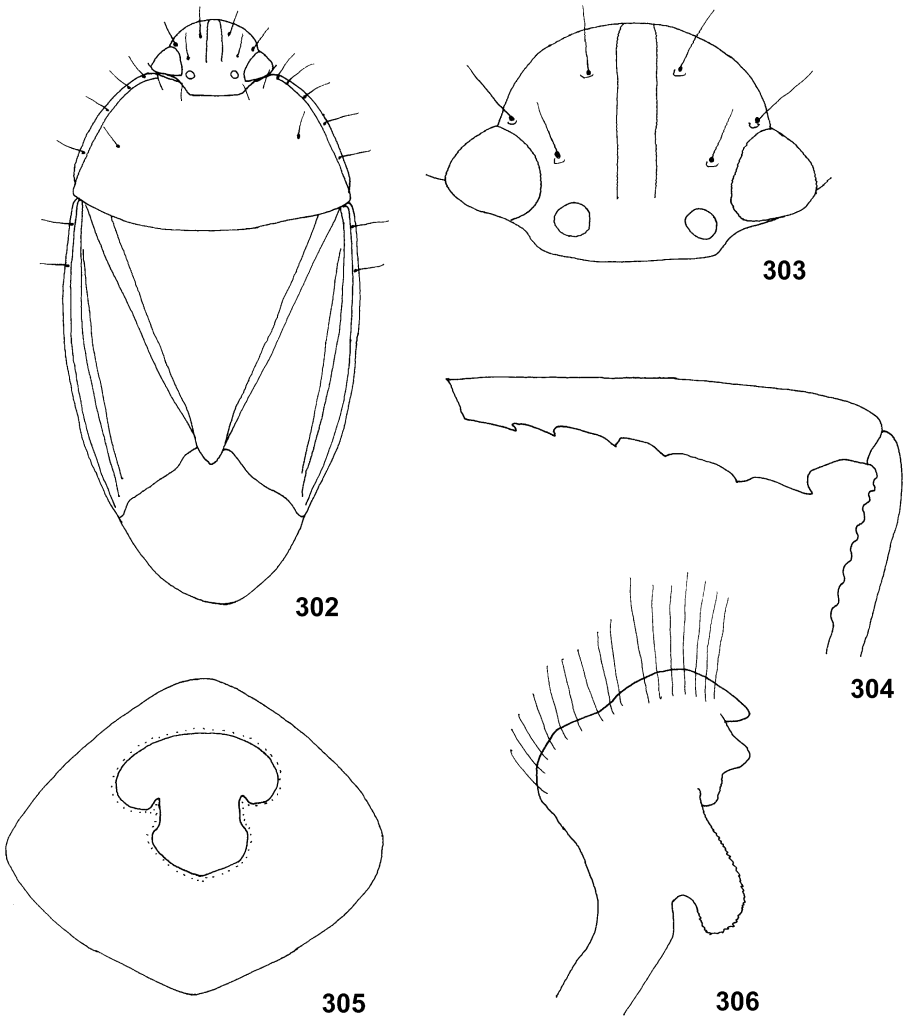
Macroscytus tamatavei J.A. LIS, 1999d.

DESCRIPTION

Body 12.58 mm in length, 6.42 mm in width, almost entirely black, only corium dark castaneous to some extent.

Head dorsally polished, slightly wrinkled in lateral parts of paraclypei, at first glance looking impunctate, but bearing numerous hardly visible tiny punctures; clypeus without subapical hair-like setae, each paraclypeus submarginally with a single preocular setigerous puncture bearing long hair-like seta (Fig. 303); ocular index 1.90; interocellar index 6.7; length of antennal segments (in mm): 0.60 : 0.76 : 1.07 : 1.39, 5th segment missing.

Puncturation of pronotal disc well visible, especially behind head and callal areas; transverse discal impression behind calli well developed, deep and punctate; lateral margins of pronotum with 4-5 submarginal setigerous punctures bearing long hair-like setae (Fig. 302). Anterior convexity of propleuron dulled and densely punctate with small punctures, posterior convexity with large scattered punctures, propleural depression densely and coarsely punctate.



302-306. *Macroscytus tamatavei* J.A. Lis: 302 - body outline; 303 - head; 304 - male posterior femur and base of tibia; 305 - male genital capsule, dorsal view; 306 – paramere

Scutellar disc with irregularly scattered punctures, its basal fourth impunctate.

Clavus with one complete and two partial rows of punctures; mesocorial disc almost evenly punctate; exocorium narrow, weakly punctate; costa narrow, slightly convex, somewhat flattened basally, almost entirely separated from exocorium, its margin with two setigerous punctures bearing long hair-like setae (Fig. 302).

Hind femur with well visible tubercles on its ventral margin, and large subapical tooth on dorsal margin (Fig. 304); hind tibia with a row of subbasal denticles (Fig. 304).

Abdominal sterna punctate laterally, around spiracles and trichobothria.

Male genitalia as in Figs 305-306.

TYPE DATA

Holotype male: Madagascar, Tamatave prov. Moramanga env. (USMB).

MATERIAL EXAMINED

Holotype.

DISTRIBUTION

Madagascar.

Macroscytus tenasserimus J.A. LIS

(Figs 307-313)

Macroscytus subaeneus, not of DALLAS: DISTANT 1901: 101 [part].
Macroscytus tenasserimus J.A. LIS, 1991: 211, 1994a: 230.

DESCRIPTION

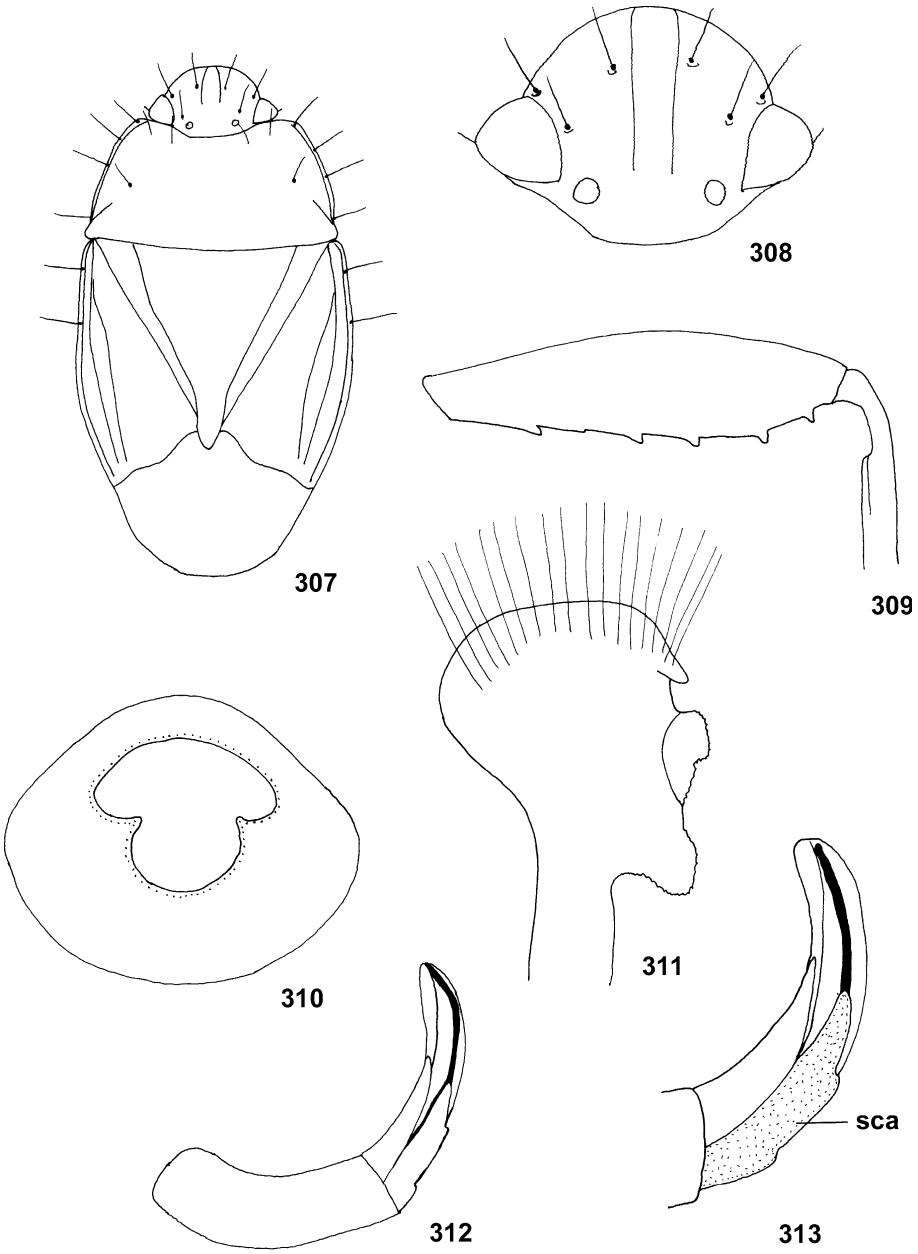
Body 9.14-10.98 mm in length, 4.85-5.75 mm in width, from pale brown to black-brown.

Head dorsally impunctate, except for three primary setigerous punctures, among them a single preocular, clypeus without a subapical pair of hair-like setae (Fig. 308); ocular index 1.98-2.69; interocellar index 6.3-8.0; length of antennal segments (in mm): 0.42-0.52 : 0.56-0.68 : 0.73-0.80 : 1.02-1.11 : 1.09-1.12.

Pronotum with discal transverse impression behind calli abruptly marked, bearing a row of punctures; lateral margins of pronotum with 4 submarginal setigerous punctures (Fig. 307); anterior lobe subapically and laterally densely punctate; posterior lobe distinctly punctate with exception of umbones and posterior margin. Propleuron distinctly punctate; depression and posterior convexity with large coarse punctures, anterior convexity with smaller punctures.

Scutellum densely punctate, anterolateral angles and apex impunctate.

Corium with punctures a little smaller than those on pronotum; clavus with one complete and two partial rows of punctures; mesocorium almost evenly punctate; exocorium very densely punctate; costa narrow, entirely separated from exocorium, bearing 2 setigerous punctures (Fig. 307).



307-313. *Macroscytus tenasserimus* J.A. Lis: 307 - body outline; 308 - head; 309 - male posterior femur and base of tibia; 310 - male genital capsule, dorsal view; 311 - paramere; 312 - penis; 313 - apical part of penis (sca – second conjunctival appendage)

Male hind femora with distinct spines on margins, male hind tibiae with distinct carina (Fig. 309); female hind femora with clearly visible subapical spine, female hind tibiae simple.

Abdominal sterna glossy in the middle, laterally densely wrinkled and bearing very small, almost indistinct punctures between wrinkles.

Male genitalia as in Figs 310-313.

TYPE DATA

Holotype male: Burma, Tenasserim, Kawkareet (ISNB).

MATERIAL EXAMINED

Holotype, and 8 other specimens: **India**: Indes Or., 1 ex. (MNHN); Assam, Kazirachi res., 2 exx. (ZIP, UO); Kalimpong, 1 ex. (ZIP). **Burma**: Katha, 1 ex. (MCSN); Schwego-Myo, 1 ex. (UO); Tenasserim, Kawkareet, 1 ex. (MCSN); Palon, Pegu, 1 ex. (ZIP).

DISTRIBUTION

Burma, India.

Macroscytus transversus (BURMEISTER)

(Figs 314-320)

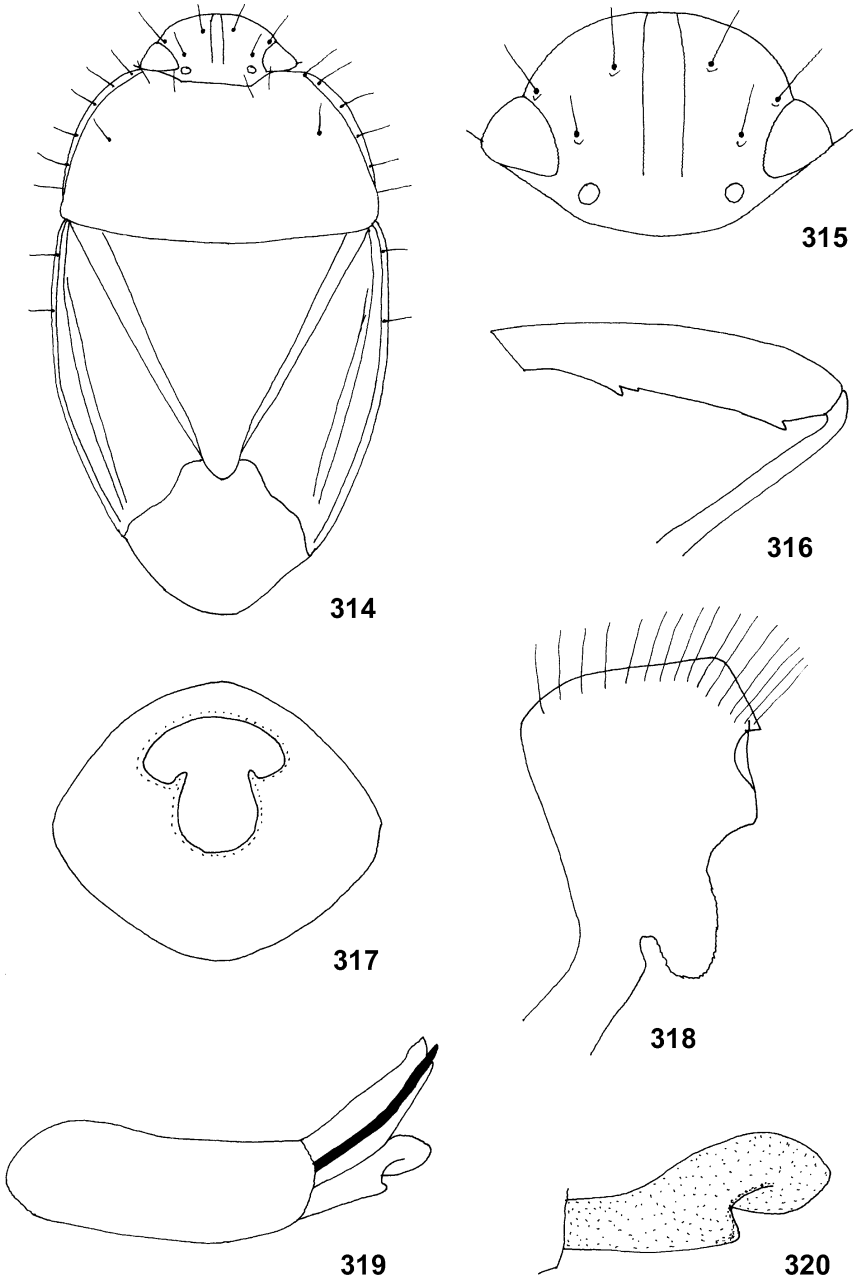
Cydnus transversus BURMEISTER, 1834: 291.
Acatalectus transversus WALKER, 1867: 164 (syn. by DISTANT 1899: 222).
Adrisa transversa (WALKER): LETHIERRY & SEVERIN 1893: 63; BREDDIN 1906: 10.
Macroscytus transversus (BURMEISTER): STÅL 1871: 614, 1876: 19; SIGNORET 1881: 642, 1883a: 476 [part]; LETHIERRY & SEVERIN 1893: 71; DISTANT 1899: 222, 1902: 96 [part]; BREDDIN 1905: 114; WU, 1935: 270; BOX 1953: 36; FROESCHNER 1967: 21; LIS 1991a: 187, 1991b: 309, 1994a: 231, 1994b: 325, 1995b: 145, 1996: 224.

DESCRIPTION

Body 7.35-10.88 mm in length, 3.92-5.74 mm in width, from dark brown to blackish brown, posterior margin and umbones of pronotum intensely yellowish brown or milky yellow, corium paler than pronotum and scutellum, sometimes clavus and exocorium yellowish brown or ochraceous.

Head dorsally with hardly visible tiny punctures, usually wrinkled, sometimes with single large punctures in lateral parts of paraclypei; clypeus without a subapical pair of hair-like setae, each paraclypeus submarginally with a single preocular setigerous puncture (Fig. 315); ocular index 2.15-2.90; interocellar index 4.2-6.2; length of antennal segments (in mm): 0.38-0.49 : 0.42-0.66 : 0.50-0.87 : 0.60-1.03 . 0.80-1.12.

Pronotal disc clearly punctate, transverse discal impression behind calli absent; lateral margins with 5-6 submarginal setigerous punctures (Fig. 314). Propleural depression and basal half of posterior convexity with numerous large punctures, anterior convexity dulled by numerous small punctures and wrinkles.



314-320. *Macroscytus transversus* (BURM.): 314 - body outline; 315 - head; 316 - male posterior femur and base of tibia; 317 - male genital capsule, dorsal view; 318 - paramere; 319 - penis; 320 - second conjunctival appendage in penis

Scutellum almost evenly punctate, basal part and apex impunctate.

Clavus with one complete and one or two partial row of dark punctures; mesocorial disc and exocorium evenly punctate; costa narrow, entirely separated from exocorium, bearing 2 (rarely 3) setigerous punctures (Fig. 314).

Male hind femora with distinct subapical tooth on dorsal margin, and more or less distinct subbasal tooth on ventral margin, hind tibiae without tubercles (Fig. 316); female hind femora with more or less visible subapical tooth on dorsal margin, hind tibiae without tubercles.

Abdominal sterna glossy in the middle, lateral parts wrinkled and punctate around spiracles.

Male genitalia as in Figs 317-320.

TYPE DATA

Lectotype female (designated by LIS, 1991a: 187) of *Cydnus transversus* BURMEISTER: Philippines, Manila (MNHU).

Lectotype male (designated by LIS, 1994a: 232) of *Acatalectus transversus* WALKER: Indonesia, Aru (BMNH).

MATERIAL EXAMINED

Lectotype of *Cydnus transversus*, Lectotype and paralectotype of *Acatalectus transversus*, and 44 other specimens: **Indonesia**: Celebes, 1 paralectotype (BMNH); Java, Banjoewangi, 1 ex. (ZIP); Java, Soekaboemi, 1 ex. (NNML); Sulawesi Utara, Dumoga-Bone Nat. Park, 6 exx. (IRSNB, UO); N. Sulawesi, Dumoga Bone NP, Malibagu Rd., 1 ex. (NNML); Sulawesi Tenggara, S. Sanggona, Foot of Gn Watuwila, Mokowu river, 1 ex. (NNML); C. Sulawesi, Palu Region, Tawaeli - Tomboli rd (km 34), 1 ex. (NNML); Sulawesi Tengah, Nr. Morowali, Ranu River Area, 19 exx. (BMNH, UO). **Philippines**: Surigao, Mindanao, 1 ex. (ZMA); Leyte, 2 exx. (ZMA, UO); Davao, Mindanao, 1 ex. (UO); Luzon, Manila, 1 ex. (BMNH); Negro lsl., 3 exx. (AMNH, UO); Philippines, Trident Mines, nr Narwan, C. Palawan lsl., 3 exx. (NSMT, UO); Baracatan, Mindanao, 1 ex. (NSMT); Mindoro, 20km W Calapan, Hidden Parad., 2 ex. (NHMW).

DISTRIBUTION

Bismarck Archipelago (New Ireland), Indonesia (Aru, Java, Moluccas, Sulawesi, West Irian), Papua New Guinea, Philippines.

Reported also from China, Sri Lanka and Japan, but all those records were based on misidentifications (see LIS 1994a). Records from Australia related to *M. bisetosus* (see LIS 1999a).

***Macroscytus unisetosus* J.A. LIS**

(Figs 321-327)

Macroscytus unisetosus J.A. LIS, 1999b: 34.

DESCRIPTION

Body 10.34 mm in length, 5.94 mm in width, blackish brown, umbones of pronotum yellowish brown, posterior pronotal margin castaneous, corium brown.

Head dorsally slightly wrinkled and bearing numerous hardly visible tiny punctures; clypeus subapically without setigerous punctures, each paraclypeus submarginally with 3 setigerous punctures bearing long hair-like setae (Fig. 322); ocular index 2.66; interocellar index 3.5; length of antennal segments (in mm): 0.56 : 0.76 : 0.67 : 0.90 : 1.07.

Puncturation of pronotal disc weak, punctures irregularly scattered; transverse discal impression behind calli absent; lateral margins of pronotum with 5-7 submarginal setigerous punctures bearing long hair-like setae (Fig. 321). Anterior convexity of propleuron densely punctate with small punctures, posterior convexity with large scattered punctures, propleural depression densely and coarsely punctate.

Scutellar disc medially with coarse punctures, its basal and apical thirds impunctate.

Clavus with one complete and two incomplete rows of punctures; mesocorium weakly punctate; exocorium densely punctate, punctures larger than those on mesocorial disc; costa broad, basally flattened, separated from exocorium in its basal three fourths, bearing a single setigerous puncture (Fig. 321).

Femora bicoloured, yellow or yellowish brown with broad dark median stripe; hind femur with a row of tubercles and denticles (Fig. 323); hind tibia with small subbasal denticles (Fig. 323).

Abdominal sterna punctate only close to lateral margins, and around spiracles and trichobothria.

Male genitalia as in Figs 324-327.

TYPE DATA

Holotype male: New Guinea NE, Wau (BMH).

MATERIAL EXAMINED

Holotype.

DISTRIBUTION

Papua New Guinea.

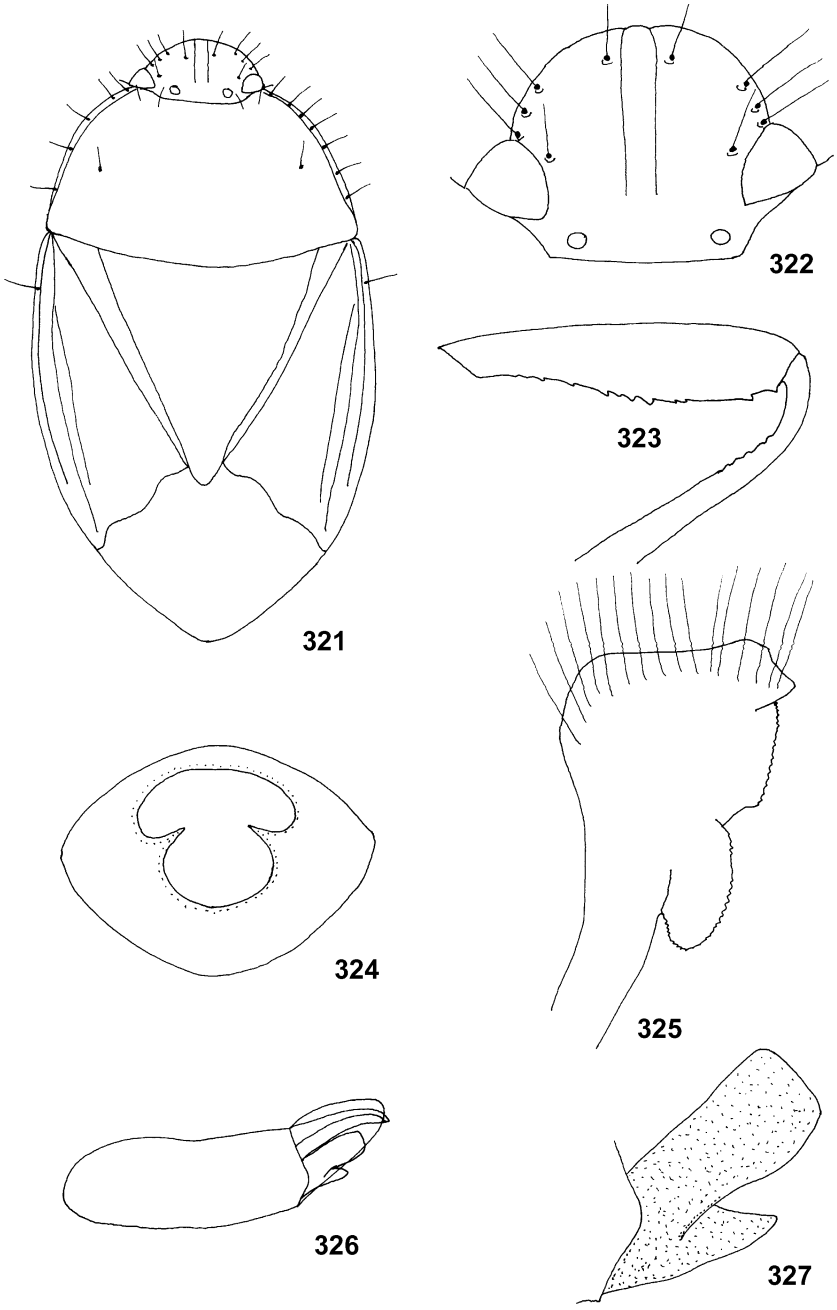
Macroscytus utaranus J.A. LIS

(Figs 328-334)

Macroscytus utaranus J.A. LIS, 1991b: 309, 1994a: 233.

DESCRIPTION

Body 6.85-7.81 mm in length, 3.68-4.05 mm in width, from brown to almost black; hemelytra, umbones and posterior margin of pronotum lighter in shade (from yellowish brown to brown).



321-327. *Macroscytus unisetosus* J.A. Lis: 321 - body outline; 322 - head; 323 - male posterior femur and base of tibia; 324 - male genital capsule, dorsal view; 325 - paramere; 326 - penis; 327 - second conjunctival appendage in penis

Head dorsally at first glance looking impunctate, but bearing numerous almost indistinct punctures, lateral parts of paraclypei slightly wrinkled; clypeus subapically without a pair of setigerous punctures, each paraclypeus bearing submarginally a single preocular setigerous puncture (Fig. 329); ocular index 2.00-2.40; interocellar index 5.5-8.3; length of antennal segments (in mm): 0.30-0.40 : 0.38-0.47 : 0.49-0.53 : 0.57-0.67 : 0.71-0.78.

Pronotal transverse impression behind calli faintly developed (sometimes almost indistinct), bearing medially interrupted row of punctures; anterior lobe with distinct punctures forming subapical transverse band, and with irregular patch of punctures on either side; posterior lobe with several scattered punctures; lateral margins with 5-6 submarginal setigerous punctures (Fig. 328). Propleural depression with coarse punctures.

Scutellar disc with numerous coarse punctures; apex and base impunctate.

Clavus with one complete and two partial rows of punctures; mesocorial disc densely evenly punctate; exocorium sparsely punctate; costa narrow, almost entirely separated from exocorium, bearing 2-3 setigerous punctures (Fig. 328).

Male hind femora with several small teeth on ventral margin, and one distinct subapical tooth on dorsal margin, hind tibiae with small tubercles (Fig. 330); female hind femora with small subapical tooth on dorsal margin, hind tibiae without tubercles.

Abdominal sterna weakly, irregularly wrinkled; each segment with a triangular patch of dense fine punctures posterior to spiracles.

Male genitalia as in Figs 331-334.

TYPE DATA

Holotype male: Indonesia, Sulawesi Utara, Dumoga-Bone National Park (ISNB).

MATERIAL EXAMINED

Holotype, 3 paratypes and 9 other specimens: **Indonesia**: Sulawesi Utara, Dumoga-Bone Nat. Park, 3 paratypes (IRSNB, UO); Sulawesi, Minahassa, Tomohon, 1 ex. (BMNH): Sulawesi Tengah, NW of Luwuk, Hanga-hanga, 1 ex. (ZMA); N. Sulawesi, Dumoga Bone NP, Malibagu Rd., 1 ex. (NNML); Iles Moluques, Amboine, 1 ex. (IRSNB); Luksag, Peleng Is., 3 exx. (NSMT, UO); E. Kalimantan, Balikpapan, 2 exx. (NSMT).

DISTRIBUTION

Indonesia (Borneo, Sulawesi, Ambon, Peleng).

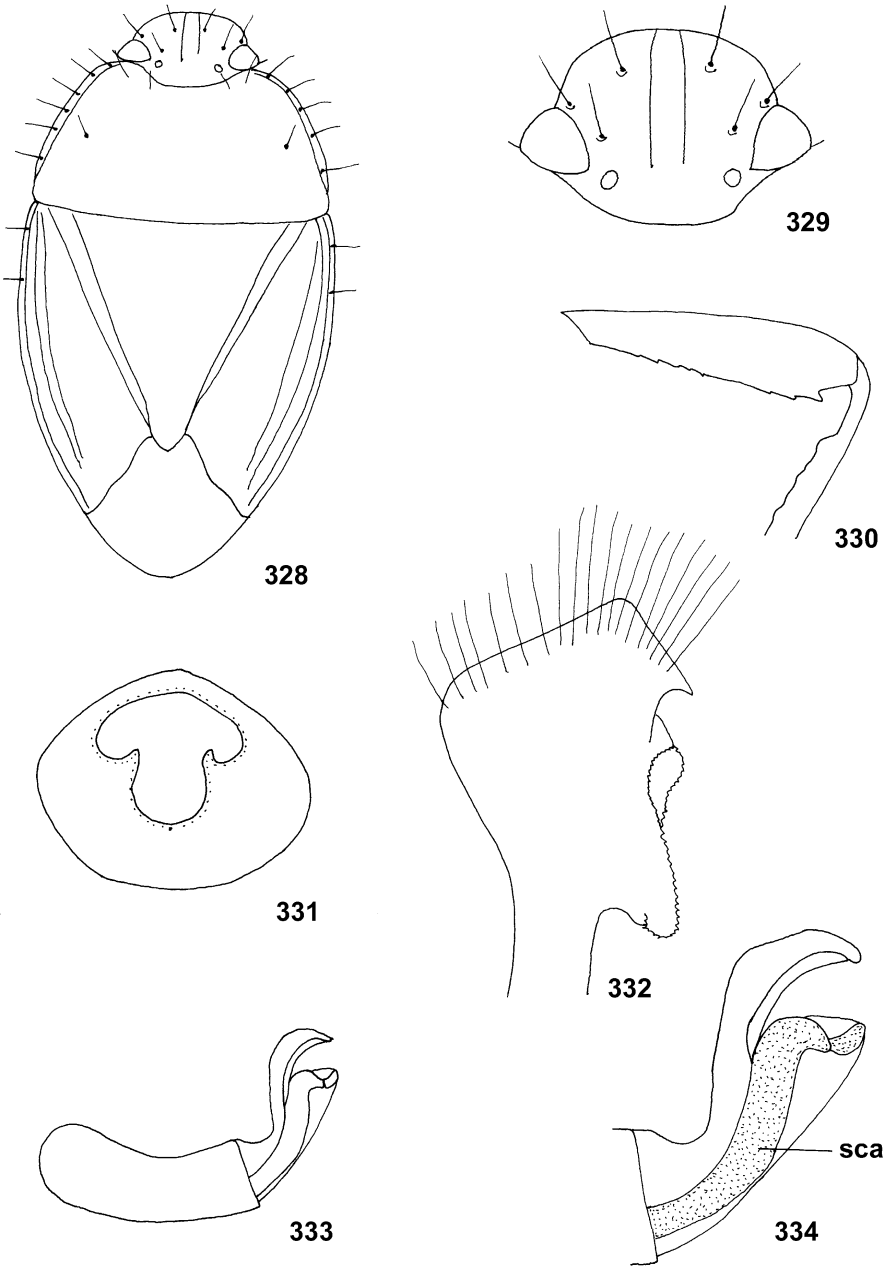
Macroscytus vietnamicus J.A. LIS

(Figs 335-341)

Macroscytus vietnamicus J.A. LIS, 1994a: 234.

DESCRIPTION

Body 8.86-10.19 mm in length, 4.55-5.65 mm in width, from dark castaneous to black, corium slightly paler than scutellum and pronotum.



328-334. *Macroscytus utaranus* J.A. Lis: 328 - body outline; 329 - head; 330 - male posterior femur and base of tibia; 331 - male genital capsule, dorsal view; 332 - paramere; 333 - penis; 334 – apical part of penis (sca - second conjunctival appendage)

Head dorsally with a few wrinkles and several small almost indistinct irregularly scattered punctures; clypeus subapically without hair-like setae, each paraclypeus with 2 submarginal setigerous punctures (Fig. 336); ocular index 2.10-2.23; interocellar index 6.6-10.4; length of antennal segments (in mm): 0.4-0.45 : 0.45-0.59 : 0.70-0.78 : 0.84-1.05 : 0.92-1.08.

Pronotum with transverse impression behind calli distinctly developed, sometimes interrupted medially; puncturation of pronotal disc clearly visible, especially laterally and behind calli; lateral margins with 4-5 submarginal setigerous punctures (Fig. 335). Propleural depression densely coarsely punctate, posterior convexity of propleuron sparsely punctate, apical part of its anterior convexity with smaller punctures.

Scutellum evenly punctate with exception of apex and anterolateral angles; punctures larger than those on pronotum.

Clavus with one complete and two partial rows of punctures; mesocorial disc almost evenly punctate, punctures of the same size as those on scutellum; exocorium densely punctate; costa narrow, moderately convex, almost entirely separated from exocorium, bearing 2 setigerous punctures (Fig. 335).

Hind male femora with several distinct teeth and tubercles, hind tibiae with distinct subbasal tooth (Fig. 337).

Abdominal sterna III-VI glossy in the middle, distinctly punctate in lateral two thirds.

Male genitalia as in Figs 338-341.

TYPE DATA

Holotype male: Vietnam, Saigon (MNHN).

MATERIAL EXAMINED

Holotype, 8 paratype, and 2 other specimens: **Burma**: Palon, Pegu, 1 paratype (UO). **India**: Kalimpong, 1 ex. (ZIP). **Laos**: Vientiane, 1 paratype, 1 ex. ((BMNH, ZSMC). **Thailand**: Siam, 1 paratype (MNHN). **Vietnam**: Cochinchine, 1 paratype (UO); Tonkin, reg. de Hoa-Binh, 1 paratype (MNHN); Vung Tau, 1 paratype (MNHN); Tonkin, 2 paratypes (BMNH, UO).

DISTRIBUTION

Burma, India (first record), Laos, Thailand, Vietnam.

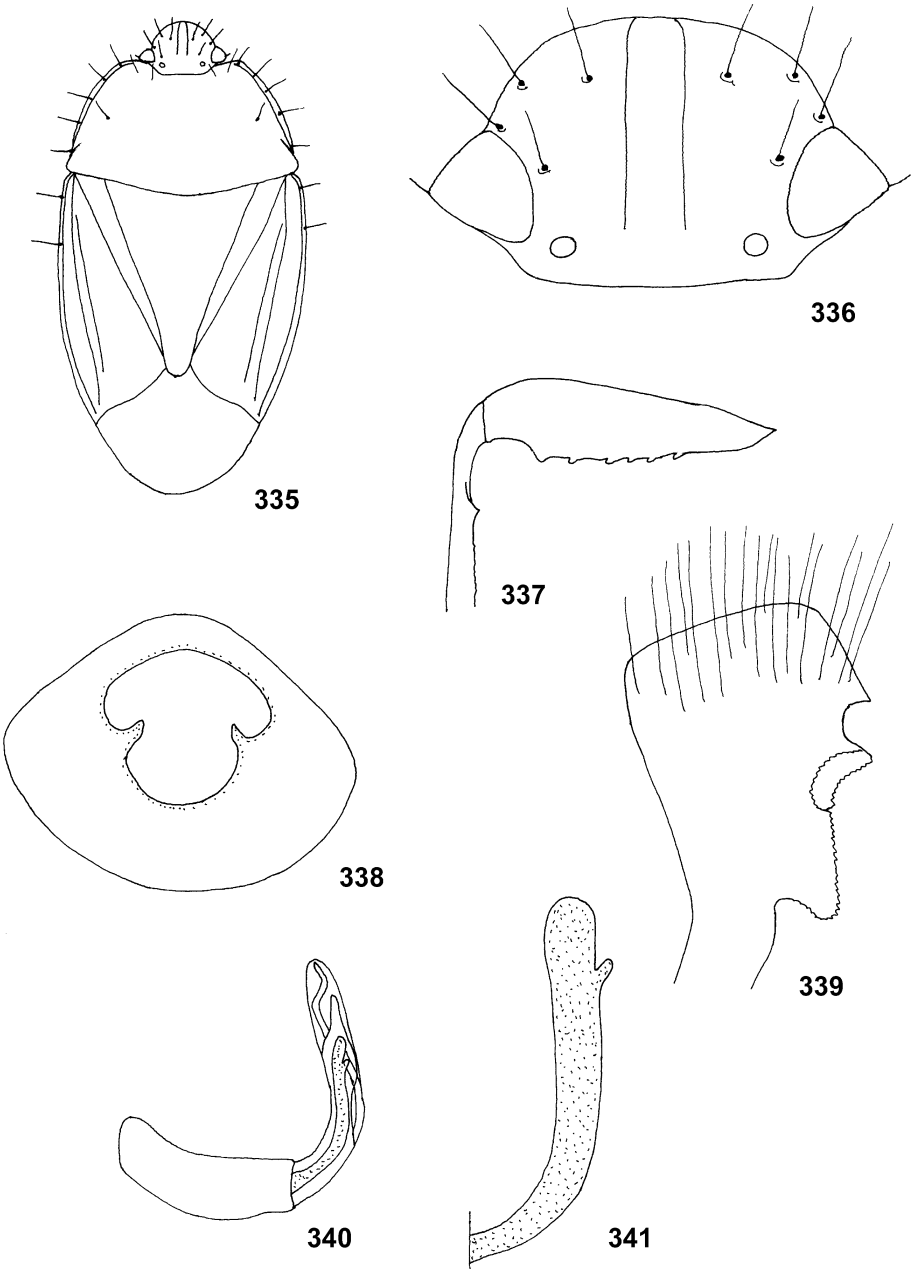
Macroscytus viettei J.A. LIS

(Figs 342-348)

Macroscytus viettei J.A. LIS, 1999d.

DESCRIPTION

Body 5.44-7.33 mm in length, 3.24-4.05 mm in width, from dark castaneous to black, corium and posterior margin of pronotum somewhat paler in shade.



335-341. *Macroscytus vietnamicus* J.A. Lis: 335 - body outline; 336 - head; 337 - male posterior femur and base of tibia; 338 - male genital capsule, dorsal view; 339 - paramere; 340 - penis; 341 - second conjunctival appendage in penis

Head dorsally impunctate, except for setigerous punctures and sometimes a few small punctures laterally; clypeus subapically without setigerous punctures, each paraclypeus submarginally with 3-5 setigerous punctures bearing long hair-like setae (Fig. 343); ocular index 2.40-2.85; interocellar index 8.0-13.0; length of antennal segments (in mm): 0.24-0.31 : 0.32-0.50 : 0.33-0.47 : 0.43-0.57 : 0.50-0.60.

Puncturation of pronotal disc well developed, punctures small, especially clearly visible behind head and calli, the latter impunctate, discal transverse impression behind calli absent; lateral margins of pronotum with 6-10 submarginal setigerous punctures bearing long hair-like setae (Fig. 342). Anterior convexity of propleuron impunctate or almost impunctate, posterior convexity distinctly coarsely punctate close to propleural depression, the latter coarsely punctate.

Scutellum with almost evenly spaced punctures as large as those on pronotum, basal fifth of scutellar disc impunctate.

Corium densely punctate, punctures darker and larger than those on scutellum; clavus with one complete and two partial rows of punctures; mesocorial disc densely and almost evenly punctate; exocorium densely punctate; costa narrow, entirely separated from exocorium, bearing 2-4 setigerous punctures (Fig. 342).

Male hind femur with subbasal tubercles and large subapical toth on its dorsal margin (Fig. 344); male hind tibia with a row of small denticles (Fig. 344); female hind femora with a row of setae on margins, female tibiae simple.

Abdominal sterna more or less polished, impunctate or with a few punctures posterior to spiracles.

Male genitalia as in Figs 345-348.

TYPE DATA

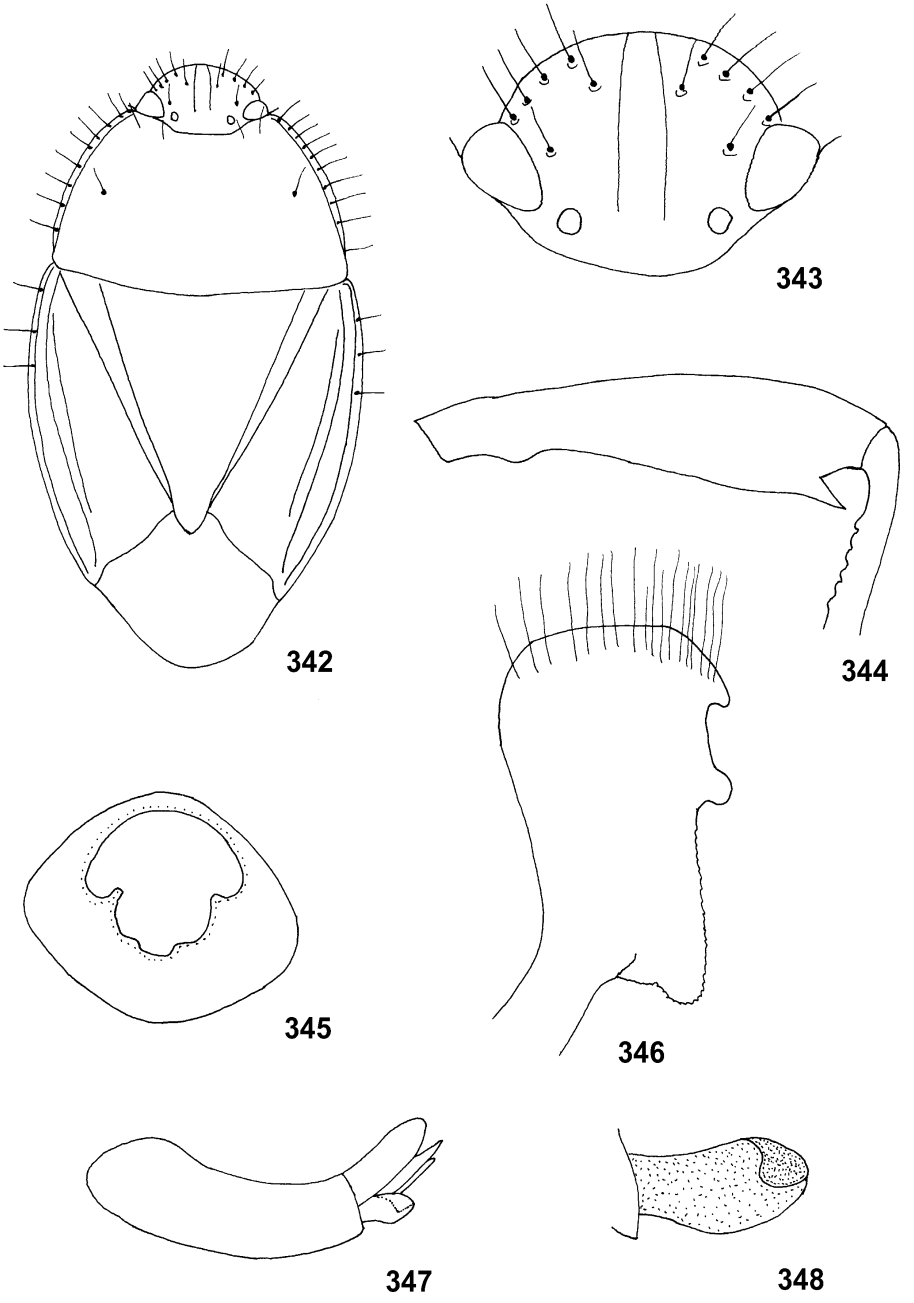
Holotype male: Comoros, Grande Comore, N'Tsoudjini (MNHN).

MATERIAL EXAMINED

Holotype, and 18 paratypes: **Comoros**: Grande Comore, N'Tsoudjini, 3 paratypes (MNHN, UO); Grande Comore, 1 paratype (MNHN); Moroni, G^{de} Comore, Malet, 1 paratype (MNHN); Djouma-Dougna, Mohéli, 2 paratypes (MNHN, UO); Mohéli, Bandamalé, 1 paratype (MNHN); Mayotte, Convalescense, 1 paratype (MNHN). **Madagascar**: 3 paratypes (MNHN, UO); Madagascar Est, district de Maroantsetra, station forestiére de Farankaraina, toute de Navana, km 16.5, vallée d'Antoroka, 3 paratypes (MNHN, UO); Baie d'Antongil, 1 paratype (MNHN); Région du Sud-Est, Fort-Dauphin, 1 paratype (MNHN); Mora Mora, Tulear, 1 paratype (MZLU).

DISTRIBUTION

Comoros, Madagascar.



342-348. *Macroscytus viettei* J.A. Lis: 342 - body outline; 343 - head; 344 - male posterior femur and base of tibia; 345 - male genital capsule, dorsal view; 346 - paramere; 347 - penis; 348 - second conjunctival appendage in penis

CLADISTIC ANALYSIS

In order to reconstruct a most parsimonious internal phylogeny for the genus and to verify whether its three formerly proposed (LIS 1999a) species-groups (*australis*-group, *aequalis*-group, *javanus*-group) represent monophyletic evolutionary lineages, the cladistic analysis included all species of the genus *Macroscytus*, and two species of other genera representing its outgroup, namely *Geotomus elongatus* (HERRICH-SCHAEFFER) and *Aethus indicus* (WESTWOOD).

A total of 118 characters were analyzed. All the characters were divided usually into two, sometimes three or four states, as follows:

Head

0. sculpture of clypeus: sparsely punctate with clearly visible punctures (0); punctate with fine, almost invisible punctures (1); smooth or alutaceous, impunctate (2);
1. puncturation of paraclypei: dense, coarse (0); sparse, but clearly visible (1); fine, almost invisible (2); absent (3);
2. striae and wrinkles on paraclypei: deep (0); shallow (1); absent (2);
3. anterior half of gular plate: densely coarsely punctate (0); sparsely punctate (1); impunctate (2);
4. posterior half of gular plate: coarsely punctate (0); finely punctate (1);
5. clypeus: parallel-sided or almost parallel-sided (0); clearly narrowed apically (1);
6. paraclypei: as long as clypeus (0); distinctly shorter than clypeus (1);
7. lateral margins of paraclypei: flat (0); clearly upcurved (1);
8. buccula: coarsely punctate along its entire length (0); impunctate in its anterior half (1);
9. eye: slightly protruding, immersed in head more than half of its width (0); distinctly protruding, immersed in head less than half of its width (1);
10. eye shape: triangular, more or less rounded (0); distinctly elongated and narrowed (1);
11. length of apical seta on eye: about third or fourth length of eye width (0); about half length of eye width (1);
12. ocelli: large (0); small (1);
13. peg-like setae on head margins: present (0); absent (1);
14. subapical pair of hair-like setae on clypeus: present (0); absent (1);
15. number of primary setigerous punctures on paraclypei: three (0), two (1);
16. number of secondary setigerous punctures on paraclypei: 1 or more (0); 0 (1);
17. secondary setigerous punctures: present along entire margins of paraclypei (0); absent in apical third (1); entirely absent (2);
18. first antennal segment: not surpassing head margin (0); surpassing head margin (1);
19. second antennal segment: clearly longer than third (0); more or less as long as third (1); distinctly shorter than third (2);

20. rostrum: short, reaching as far as middle of mesosternum (0); long, reaching at least middle coxae (1);
21. second rostral segment: not reaching anterior margin of procoxae (0); reaching or surpassing anterior margin of procoxae (1);

Prothorax

22. pronotal disc: more or less unicolorous (0); entire posterior margin narrowly yellow or yellowish-brown (1); only umbones entirely yellow or yellowish brown (2); posterior margin narrowly and umbones entirely yellow or yellowish-brown (3); posterior third broadly yellow or yellowish brown (4);
23. posterior margin at scutellum base: straight (0); rounded (1);
24. puncturation of pronotal disc: clearly visible, dense (0); clearly visible, sparse (1); almost indistinct or absent (2);
25. calli: flat (0); elevated (1);
26. sculpture of callal surface: as in remaining part of disc (0); differing from remaining part of disc (1);
27. transverse depression behind calli: deep, clearly visible (0); shallow or absent (1);
28. pronotal umbones: normally developed, unswollen (0); distinctly swollen and concealing postero-lateral margins of pronotum (1);
29. primary hair-like setae on pronotal disc: present (0); absent (1);
30. number of secondary submarginal hair-like setae on anterior half of pronotal disc: 3 and more (0); 2 (1); 0 (2);
31. number of secondary submarginal hair-like setae on posterior half of pronotal disc: 2 and more (0); 1 (1); 0 (2);
32. prosternal median carinae: low (0); high (1);
33. base of prosternal median carinae: narrow and almost laminate (0); broad and stout (1);
34. subcarinal smooth areas: small, hardly visible (0); large, clearly visible (1);
35. pilosity of posterior part of prosternum: absent (0); present (1);
36. posterior margin of prosternum: rounded or straight (0); with small median process (1); with large median tooth (2);
37. anterior convexity of propleuron: entirely densely punctate (0); densely punctate laterally or in its anterior half (1); weakly punctate (2); impunctate or almost impunctate (3);
38. posterior convexity of propleuron: clearly densely punctate (0); clearly sparsely punctate (1); impunctate or almost impunctate (2);
39. propleural depression: with a band of coarse punctures (0); with a row of well separated punctures (1); with a few punctures only (2);

Mesothorax

40. disc of scutellum: densely punctate (0); weakly punctate (1); impunctate or almost impunctate (2);

41. puncturation of basal row on scutellar disc: as in lateral rows (0); denser than in lateral rows (1); sparser than in lateral rows (2);
42. punctures in basal row on scutellar disc: separated from each other (0); connected by incised line (1);
43. punctures in lateral rows on scutellar disc: separated from each other (0); connected by incised line (1);
44. apex of scutellum: broadly tongue-like (0); sharpened apically (1);
45. posterior wedge-shaped polished band on mesopleural evaporatorium: absent (0); densely punctate (1); sparsely punctate (2); impunctate or almost impunctate (3);
46. mesopleural evaporative areas: small, occupying about a half or two thirds of mesopleuron surface (0); large, occupying almost enire mesopleuron surface (1);
47. longitudinal ridges on mesopleural evaporative areas: deep and coarse (0); weak and shallow (1); absent (2);
48. anterior part of mesopleuron: densely punctate (0); sparsely punctate (1); impunctate (2);

Metathorax

49. costa: entirely or almost entirely separated from exocorium (0); separated from exocorium in its basal two thirds (1); separated from exocorium in its basal half (2); entirely fused with exocorium (3);
50. number of hair-like setae on costal margin: 4 or more (0); 1-3 (1); 0 (2);
51. number of rows of punctures on clavus: 3 (0); 2 (1); 1 (2);
52. punctures in longest row on clavus: separated from each other (0); connected by incised line (1);
53. additional punctures in basal part of clavus: present (0); absent (1);
54. mesocorium: densely punctate (0); sparsely punctate (1); impunctate or almost impunctate (2);
55. puncturation of exocorium in comparison to that of mesocorium: as dense as (0); clearly sparser (1); clearly denser (2);
56. punctures in inner row parallel to clavo-corial suture on corium: unconnected by incised line (0); connected by incised line (1);
57. punctures in outer row parallel to clavo-corial suture on corium: unconnected by incised line (0); connected by incised line (1);
58. mesocorium and exocorium: separated along almost their entire length (0); separated only in basal fourth fifths (1);
59. basal part of costal margin: not reflected downward (0); strongly reflected downward (1);
60. membranal suture of hemelytron: more or less bisinuate (0); straight or almost straight (1);
61. longitudinal ridges on metapleural evaporative areas: deep and coarse (0); weak and shallow (1); absent (2);
62. apex of peritreme on metapleural evaporatorium: dull (0); polished (1);

63. subapical spur of peritreme on metapleural evaporatorium: absent (0); triangular (1); forming slender tooth (2);
64. scent gland opening on peritreme: ventrally (0); posteriorly (1);
65. size of scent gland opening on peritreme: small, hardly visible (0); large, clearly visible (1);
66. anterior margin of peritremal apex: entirely sharply differentiated from surface of evaporative area (0); narrowly prolonged laterad to fuse with surface of evaporative area (1); broadly prolonged laterad to fuse with surface of evaporative area (2);
67. lateral area of metapleuron: almost totally punctate (0); punctate only close to margin of evaporative area (1); impunctate or almost impunctate (2);
68. posterior area of metapleuron: broadly punctate (0); narrowly punctate (1);
69. longitudinal rugae on lateral area of metapleuron: absent (0); present (1);

Legs

70. femora: unicolorous dark (0); sharply bicoloured, pale with dark median stripe (1);
71. spines on margins of male fore femur: absent (0); present (1);
72. spines on margins of female forefemur: absent (0); present (1);
73. spines on margins of male mid femur: absent (0); present (1);
74. spines or tubercles on margins of male hind femur: absent (0); present (1);
75. spines or tubercles on margins of female hind femur: absent (0); present (1);
76. subapical spine or tubercle on margin of male hind femur: absent (0); small (1); large (2);
77. subbasal tooth on male hind femur: absent (0); present (1);
78. male hind tibia basally: with neither denticle nor carina (0); carinate only (1); dentate only (2); dentate and carinate (3);
79. length of hind tibia: almost as long as femur and trochanter together (0); clearly longer than femur and trochanter together (1);

Abdomen

80. visible sterna I-IV ventrally: punctate in lateral thirds (0); punctate only around spiracles and trichobothria (1); punctate only posterior to spiracles (2);
81. punctures close to spiracles: coarse (0); fine (1);
82. wrinkles on visible sterna I-IV: absent (0); weakly developed (1); strongly developed (2);
83. median bunch of hairs on visible sternum I: dense (0); sparse (1); absent (2);
84. a single lateral sternal tubercle bearing long hair-like seta: placed medially (0); placed close to posterior margin (1); absent (2);
85. sternal sutures: coarsely punctate (0); finely punctate (1);
86. long hairs along sternal sutures: present (0); absent (1);
87. muscle scars: indistinct (0); narrow, hardly visible (1); broad, clearly visible (2);

88. setae along lateral sternal margins: present (0); absent (1);
89. very short setae on sternal surface: present (0); absent (1);
90. pilosity of terga: present (0); absent (1);
91. puncturation of terga: dense (0); weak (1); absent (2);

Female genitalia

92. puncturation of paratergite VIII: dense (0); weak (1); absent (2);
93. puncturation of paratergite IX: dense (0); weak (1); absent (2);
94. puncturation of valvifer I: dense (0); weak (1); a few punctures close to margins (2); absent (3);
95. valvifer I: broader than long (0); almost as long as broad (1); longer than broad (2);
96. dorsal margin of valvifer I: straight (0); insinuated (1);
97. dorsal inner angle of valvifer I: normally developed (0); slightly elongated (1); strongly elongated (2);
98. short setae on valvifer I: numerous and evenly spaced (0); a few irregularly scattered (1);
99. paratergite IX: clearly smaller than paratergite VIII (0); as large as paratergite VIII (1);
100. long stout setae on paratergite IX: more than 1 (0); 1 (1); absent (2);
101. dorsal margin of proctiger: rounded (0); straight (1);

Male genitalia

102. pregenital segment medially: narrower than remaining segments together (0); as broad as or broader than remaining segments together (1);
103. male pygophore ventrally: clearly punctate (0); impunctate or almost impunctate (1);
104. dorsal margin of male pygophore opening: broadly rounded (0); triangular or rectangular (1); with clear round median incision (2);
105. lateral sclerotization of dorsal margin of pygophore opening: absent (0); weak (1); strong (2);
106. a bunch of long hair-like setae on lateral margins of male pygophore: absent (0); present (1);
107. theca of penis: slender along its entire length (0); distinctly broadened in its apical half (1); distinctly broadened in its basal half (2);
108. dorsal surface of theca: straight or almost straight (0); distinctly concave (1);
109. ventral surface of theca: straight or almost straight (0); distinctly convex (1);
110. ventral median carina of theca: absent (0); present (1);
111. ductus seminis: shorter than or about 1/3 length of theca (0); about a half length of theca (1); as long as or almost as long as theca (2); longer than theca (3);

112. second conjunctival appendages: short, broad along its entire length (0); short, basally broad and apically narrowed (1); short, basally narrow and apically broadened (2); long, entirely broad or only apically narrowed (3); very long, narrow on its entire length (4);
113. sclerotization of second conjunctival appendages: strong (0); weak (1);
114. second conjunctival appendages: undivided into lobes (0); divided into lobes (1);
115. apical margin of paramere: broadly rounded (0); narrowed apically (1).
116. pilosity of hypophysis of paramere: dense (0); sparse (1);
117. hairs on margin of paramere: of different length (0); almost of same length (1).

The characters were analysed using „mhenn*" option in Hennig86. In order to avoid misinterpretation of multistate characters polarity (FOREY et al. 1992), states were treated as unordered and unweighted (option „cc-"). The character state matrix is shown in table 1.

The analysis resulted in two trees (Figs 349-350), each 996 steps long and with a consistency index (ci) of 17, and retention index (ri) of 47. Additionally, a consensus tree (Fig. 351) was obtained using the "nelsen" procedure in Hennig86.

The resulted trees clearly show that according to selected taxa the genus *Macroscytus* forms a monophyletic group supported by 6 synapomorphies in characters 28 (pronotal umbones distinctly swollen and concealing postero-lateral margins of pronotum), 44 (apex of scutellum sharpened apically), 46 (mesopleural evaporative areas large, occupying almost entire surface of mesopleuron), 52 (punctures in longest row on clavus connected by incised line), 56 (punctures in inner row parallel to clavo-corial suture on corium connected by incised line) and 106 (lateral margins of male pygophore with long hair-like setae forming a bunch on either side).

All the resulting trees identified *M. nigroaeneus* as a sister group (however unjustified by any autapomorphy) of all the remaining species of the genus; moreover, two cladograms show the latter clade to form three (Fig. 350) or four (Fig. 349) subgroups.

Unfortunately, all the cladograms included only homoplasies (116 parallelisms and reversals out of 118 total characters). The unique true apomorphy (autapomorphy) concerns *M. lobatus*, where two characters, namely #15 (only two primary setigerous punctures present on paraclypeus) and #29 (primary setigerous punctures on pronotal disc absent) are not found in any other species of the genus, and they seem to represent the apomorphic reduction of a number of primary setigerous punctures on head and pronotum (all the remaining species have three primary setigerous punctures on head and three on a pronotal disc).

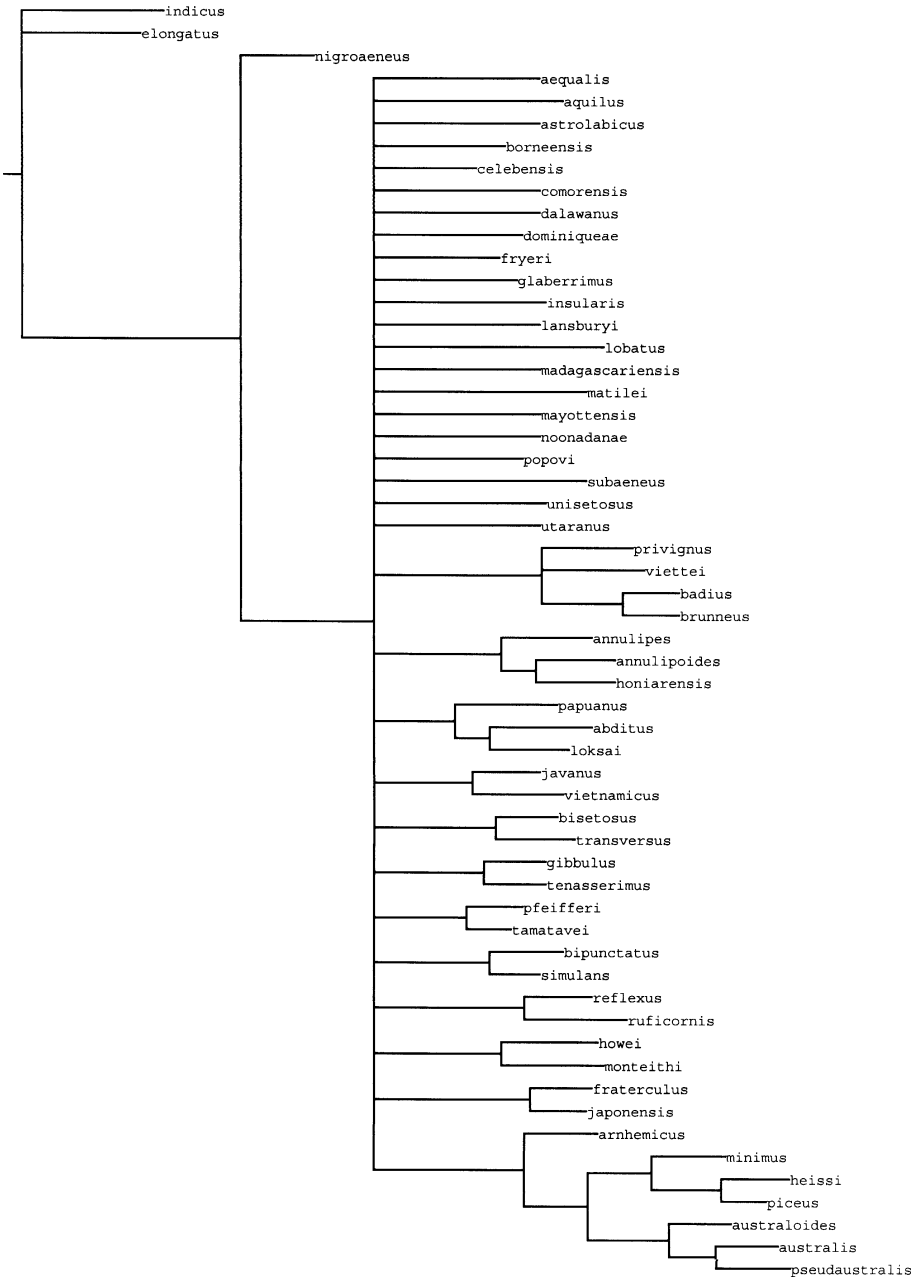
Since the only criterion of recognition of a monophyletic group is at least one synapomorphy, there is no reason to divide the genus into smaller units as proposed previously (LIS 1994a); moreover, not a group recognized by cladistic analysis corresponds to formerly accepted species-group.

Taxon	Characters 0123456789	(1)0123456789	(2)0123456789	(3)0123456789	(4)0123456789	(5)0123456789	(6)0123456789	(7)0123456789	(8)0123456789	(9)0123456789	(10)0123456789	(11)0123456789
indicus	2002111110	0100100002	0001001100	0011111320	0100000203	0001000011	1212100110	0111000001	0002010010	1222100010	1110100000	0131000?
elongatus	0012100100	0111100011	1100001100	0001002322	0100000213	1001000011	1200010110	0000000000	0011210000	0100110010	1100100000	0111010?
abditus	2222000011	1100200110	0100110211	2200121010	2010001060	0001101001	0000111001	1002010011	0211110011	0100100111	0100000?	0140010?
aequalis	1110000001	0001101212	1101111010	0100110210	0100121020	1010001100	0001110110	0001102033	0010101110	0122210011	0100121000	0130010?
annulipes	1212000011	0001101202	1131100310	0100110311	2011111120	1010001100	0101110100	1000101001	2001101011	0100110011	0100211001	0010010?
annulipoides	2221000001	0001101202	1131100310	0100110310	0011111020	1010101100	0001110101	1000100021	2102101000	0012210010	0100101010	0000010?
aquilus	2322000011	0001101201	1101100110	0100110322	1111131120	1210001100	0101110210	0000000033	1101111111	0122310011	0100111000	0000000?
armiensicus	1212000010	0011100101	1101100110	0000110210	0211131120	1010001100	0101110200	0000111021	2102101100	1111110001	0100122000	0020101?
asirolabicus	2121000011	0011100102	1131001110	0100110210	1100111000	1110121100	0001110100	1000110021	1000101111	0002110010	0101110000	0130110?
australis	2112000010	1011000001	0001101110	0000111320	0000121121	0001002100	0201111211	0001101021	1101111110	0222210011	0011222100	0120110?
australoides	1212000010	1011000001	0012201110	0000111210	0200121111	0010021100	0201111100	0000112021	2101101110	0211210011	0011221000	0000010?
badius	2212000000	1011100100	0001101110	0000110210	0011121110	0010001100	0201110200	0000112031	2101101200	0211321211	0000221211	0000000?
bipunctatus	2000000001	0001101212	1121001110	0000110110	0000131000	1010001100	0001110210	0000112001	0000101200	0001010000	0100021001	0120100?
bisetosus	2221000011	0011101212	1131000110	0100110210	1211131000	1010011100	0000110100	0000111101	2001102211	0012111110	0100021011	0130100?
borneensis	2211000011	0001101212	1101111010	0100110110	0101131000	1010011100	0001110210	0000112031	1011111200	0011110000	0001121001	0130000?
brunneus	2211000010	1011010110	1101101110	0001133210	0010001100	0201111100	0001110200	0000112011	2101111100	0112121211	0100021211	0000000?
celebensis	2222000011	0001101202	1141011110	1100110110	0011121012	2011001100	0101110200	0?0?11??71	1111111111	0112210011	0?????0??	???????
comorensis	2221000000	1011101202	0001001110	0000110310	1110111002	1110001100	0101110210	0000110201	2020101211	0122321111	??0?101011	0010000?
fraterculus	2201000000	1011101202	0001001110	0000110310	0201131000	1010001100	0001110210	0000110201	2020101211	0122321111	0111211000	0130010?
dalawanus	2311000001	0001101212	1101111010	0100110110	0201111000	1010001100	0101110200	0000112021	1010112111	0101011111	0100101?	0230101?
dominiqueae	2212000000	0001101212	1101001010	0000110110	0011131010	1010001100	0001110210	0000112031	0021102111	0112121111	0101021001	0130110?
fryeri	2210000001	0001100101	1101101110	0000110210	0100131012	1010001100	0001110211	0?0?0?0?21	1011101110	0112211111	00??????	???????
gibbulus	2221000011	0001101212	1101001010	0100110210	0211131010	1010011100	0001110201	0000111031	1021112211	0122221210	0101011011	0340100?
glaberrimus	2222000001	0001101201	1101101110	0100110110	0211131010	1010011100	0001110211	0000110021	2010102111	0011111010	0101122000	0020011?
heissi	1202000010	1011010110	1101011110	0000110210	0001131120	0010021100	0101110210	0?0?1?0021	0000102111	0?????0??	0?01002010	0110010?
horiaensis	1211000011	0011101202	1131001010	0000110211	1011111000	2011001100	0001110101	1001100021	2020101211	0112210010	0001111000	0000010?
howei	1222000010	0011101202	1131001010	0000110220	0011131010	1110211111	0001110110	0000000001	0011110210	0112111010	0100211100	0000110?
insularis	3220000000	0011100111	1101111010	0100110110	0100121002	1110021100	0001110100	0?0?1?0021	0010102111	0?????0??	0?01210111	0010106?
japonensis	1201000000	1011101202	1101001110	0000110210	0201131100	1010001100	0101110211	0000101031	2010102111	0111220011	0011121000	0130010?
javanus	1211000011	0001101202	0001001110	0000110110	0211131010	1010001100	0001110210	0001111031	1011111211	0112121111	0110111111	0130110?
lansburyi	1212000011	0011100101	1131101110	0100110110	1001121010	2110121100	0001110100	1000101071	2101111111	0?????0??	0?01010000	0010010?
lobatus	1200000001	0001111210	1101011011	2200100000	0100111023	2010021100	0001110200	0000111021	0000102111	0?????0??	0?01002000	0130110?
loksai	2312000010	0011100102	1101200110	0100110310	2201131010	2010121000	0001110110	0?0?1?0001	1011101111	0?????0??	0?01021000	0130110?
madagascariensis	2311000001	0001101201	1101100110	0100110010	0200121003	2010011100	0001110210	0001102011	0011102110	0?????0??	0?01221000	0130010?
matilei	2322000010	1011100101	0101001110	0000110312	1201131010	1210101100	0101110210	0000101011	2110101111	0111110011	0100021000	0010110?
mayottensis	2301000001	0011100111	1101001110	0000110100	0100121012	1010001100	0101110210	0001101021	0001100200	0202110010	0101211011	0010100?
minimus	2302000010	0011100002	0001001110	0000110321	0200131120	0010021100	0101110210	0000000001	2110110100	0211210011	0010021000	0020006?
monteithi	2322000010	1011100202	1101200110	0000110110	1201131010	1010001100	0101110211	0000000021	2100100211	0112210010	0110221111	0000010?
nigricaeneus	2001000001	0001101101	1101001110	0000110200	0201131000	0010021100	0101110101	0000101033	0001111110	0112110010	0110221000	0010010?
noonadanae	2322000011	0001101212	1101001010	0100110210	0001131010	1210111100	0001110210	0000111031	2111111111	0222121111	0101011111	0230000?
papuanus	2212000011	0001101212	1101001010	0100110300	1201131010	2110121100	0001110111	0000111001	2111111111	0221210010	0101011011	0130010?
pfeifferi	2211000001	0001101212	1101011010	0100111000	0101121010	1010011100	0001110200	0000112021	1110111101	0012220010	0101021001	0130010?
piceus	1201000010	1011000001	0001001110	0000110210	0201131121	0010021100	0101111211	0000100021	0010100101	0101210011	0010021000	0110110?
popovi	1211000010	0011101202	1101011110	0000110300	0201131010	1010011100	0001110211	0000111021	1110111111	0211211111	0101011001	0130010?
privignus	2312000011	0001100112	1101101110	0000110310	0011121123	1010011100	0101110210	0000102021	2111111111	0211121211	0101211011	0010110?
pseudaustralis	1112000010	1011000001	1110101110	0000111320	0210131121	0010021100	0001111211	0000111021	2111101110	0112210010	0010221011	0020010?
reflexus	1211000011	0001100112	1101011110	0000110210	0111131012	1010021100	0101110111	0000111021	1110111210	0212221110	0001211011	0010000?
rufitomis	2110000000	0011101212	1101011110	0000110100	0011111101	1010021100	0101110201	0000111001	0001101200	0212221110	0001211011	0010000?
simulans	1011000001	0001101212	1121001110	0100110100	0100121010	1010001100	0001110210	0000112001	0011101211	0000020000	0000021001	0120010?
subaeneus	1222000010	1011101202	0001001110	0100110310	2011131010	0010021100	0101110210	0001101101	2121111100	0201120001	0001011011	0130010?
tamatavei	1211000011	0001101212	1101011010	0100110000	0111121110	1010011100	0101110200	0?0?1?2021	1011111110	0?????0??	0?01021000	0?????10
tenasserimius	2211000011	0001101212	1101011010	0100110000	0211131110	1010011100	0101110201	0000111011	0021101211	1112121110	0101021011	0230100?
transversus	1210000001	0011101212	1131011110	0000110100	0211131000	1010011100	0001110111	0000111101	1011111200	0012121110	0100221011	0130101?
unisetosus	1211000001	0011100100	1121001010	0000110100	1200110010	0010021000	0101110101	1?0?1?1021	0012101100	0?????0??	0?01011011	0000000?
utaranus	1211000001	0011101202	0001001110	0100110010	1211121010	1010001100	0101110211	0000111021	2110111201	0022221110	0101011111	0140010?
vietnamicus	1111000001	0001100102	1101011010	0100110100	0211121010	1010001100	0101110210	0001101031	0011112110	0102110111	0101011011	0340101?
vieltei	2312000000	1001100101	0001001110	0000110210	0011131120	1010001100	0201110211	0000102121	2111111111	0222211211	0111211011	0000011?

Table 1. Character state matrix for the genus *Macroscytus* and its outgroup (character states which could not be scored due to absence of material are indicated by a question mark)

349. Cladogram of *Macroscytus* and related taxa, as received using „mhenn*" option in Hennig86 (L = 996, CI = 17, RI = 47)

350. Cladogram of *Macroscytus* and related taxa, as received using „mhenn*" option in Hennig86 (L = 996, CI = 17, RI = 47)



351. Consensus tree for the genus *Macroscytus* and related taxa

Concluding, it can be said that the results of cladistic analysis suggest a mosaic type of evolution within the genus, where true internal phylogentic relationships are completely obscured by homoplasies.

SPECIES ERRONEOUSLY PLACED IN *MACROSCYTUS*
(originally or subsequently)

***Macroscytus americanus* (STÅL)**
Described by STÅL (1860) in the genus *Aethus* DALLAS, then transferred by the same author to *Macroscytus* (STÅL 1876).
Present status (FROESCHNER 1960): *Dallasiellus americanus* (STÅL).

***Macroscytus difficilis* (STÅL)**
Described by STÅL (1854) in the genus *Aethus* DALLAS; placed in *Macroscytus* by STÅL (1865, 1876).
Present status (LIS,1994a): *Fromundus difficilis* (STÅL)

***Macroscytus electus* DISTANT**
Described originally in *Macroscytus* by DISTANT (1908), and then treated as a such also by HOBERLANDT (1960).
Present status (LIS 1993c): a junior synonym of *Microporus laticeps* (SIGNORET, 1882).

***Macroscytus foveolus* (DALLAS)**
Described by DALLAS (1851) in the genus *Aethus* DALLAS; for a long time misinterpreted as a representative of *Macroscytus*; its status was clarified only recently (LIS 1994a). The species regarded by many authors as *M. foveolus* was actually *M. aequalis*.
Present status (LIS 1994a): *Aethoscytus foveolus* (DALLAS).

***Macroscytus hirtipes* (PALISOT DE BEAUVOIS)**
Originally described in the genus *Pentatoma* LATREILLE (PALISOT DE BEAUVOIS 1811); placed in *Macroscytus* by STÅL (1865, 1876).
Present status (LIS, 1994a): *Fromundus hirtipes* **(**PALISOT DE BEAUVOIS**).**

***Macroscytus laevipennis* SIGNORET**
Described originally in *Macroscytus* by SIGNORET (1881); then transferred to the genus *Geotomus* MULSANT et REY (SIGNORET 1883b).
Present status (FROESCHNER 1960): *Dallasiellus laevipennis* (SIGNORET).

***Macroscytus longirostris* BERGROTH**
Described originally in *Macroscytus* by BERGROTH (1915).
Present status (LIS 1994a): a junior synonym of *Lactistes truncatoserratus* SIGNORET, 1879.

***Macroscytus lugubris* (STÅL)**
Described by STÅL (1860) in the genus *Aethus* DALLAS, then transferred by the same author to *Macroscytus* (STÅL, 1876).
Present status (FROESCHNER 1960): *Dallasiellus lugubris* (STÅL).

***Macroscytus macrops* (GERSTAECKER)**

Described by GERSTAECKER (1873) in the genus *Aethus* DALLAS, then transferred to *Macroscytus* by SIGNORET (1883a), and treated in the same way by LETHIERRY & SEVERIN (1893) and JEANNEL (1913).

Present status (LINNAVUORI 1993): *Endotylus macrops* (GERSTAECKER).

***Macroscytus multisetosus* NOUALHIER**

Described originally in *Macroscytus* by NOUALHIER (1898), and in the same manner treated by BERGROTH (1908).

Present status (LIS 1994a): *Aethoscytus multisetosus* (NOUALHIER).

***Macroscytus nitidus* SIGNORET**

Described originally in *Macroscytus* by SIGNORET (1883a), and treated in the same way by LETHIERRY & SEVERIN (1893).

Present status (LIS 1991d): *Geocnethus nitidus* (SIGNORET).

***Macroscytus parcimonius* (SIGNORET)**

Described by SIGNORET in the genus *Aethus* DALLAS (FAIRMAIRE & SIGNORET 1858); placed in *Macroscytus* by STÅL (1865, 1876).

Present status (LIS 1994a): *Fromundus parcimonius* (SIGNORET).

***Macroscytus picinus* (STÅL)**

Described by STÅL (1853) in the genus *Aethus* DALLAS; subsequently (STÅL 1865, 1876) placed in *Macroscytus*.

Present status (LIS 1994a): *Fromundus picinus* ((STÅL).

***Macroscytus punctatissimus* (DALLAS)**

Described by DALLAS (1851) in the genus *Aethus* DALLAS; transferred to *Macroscytus* by SIGNORET (1883a). LINNAVUORI (1993) treated it as a species of uncertain generic position.

Present status (LIS 1997c): *Afroscytus punctatissimus* (DALLAS).

***Macroscytus spinicrus* SIGNORET**

Described originally in *Macroscytus* by SIGNORET (1883a), and treated in the same way by LETHIERRY & SEVERIN (1893) and SYNAVE (1969).

Present status: This American species was overlooked in a revision of *Cydnidae* of the western hemisphere (FROESCHNER 1960). Both, the original description and figures suggested it is conspecific with *Dallasiellus americanus* (STÅL), as it was already noticed by SIGNORET (1883a).

***Macroscytus subparallelus* SIGNORET**

Described originally in *Macroscytus* by SIGNORET (1881), then transferred to *Geotomus* MULS. et REY (SIGNORET 1883b).

Present status: Since this American species was overlooked in a revision of *Cydnidae* of the western hemisphere (FROESCHNER 1960), its correct systematic position is still unclear. Basing on the original description and figures one may assume it pertains to the New World genus *Dallasiellus* BERG, and has nothing to do with *Macroscytus* (as other New World species placed previously in the latter genus).

***Macroscytus viduus* (STÅL)**

Described by STÅL (1860) in the genus *Aethus* DALLAS, then transferred by the same author to *Macroscytus* (STÅL 1876).

Present status (FROESCHNER 1960): *Dallasiellus viduus* (STÅL).

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