

OCCASIONAL PAPER NO. 210

**RECORDS OF THE
ZOOLOGICAL SURVEY OF INDIA**

**Studies on Oriental Dermoptera preserved in the
B. P. Museum, Hawaii, U. S. A.**

G.K. SRIVASTAVA

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INTRODUCTION

A total of 90 species belonging to 40 genera are dealt with in this paper of which 40 are from China, 32 from Thailand, 28 from Vietnam, 17 from Laos, 4 from Hong Kong, 3 from India and 1 from Cambodia. Out of these altogether 16 species are described as new to science. Besides *Oresiobia chinensis* Steinmann is treated as synonym under *Anechura externa* Bey-Bienko, comb. nov. and *Eudohrnia hrisuta* Zhang, Ma & Chen, 1992 under *Eudohrnia zae* (Liu, 1946).

A table giving countrywise distribution of various species is provided. Types of all the species described as new are deposited in the collections of the Bishop P. Museum, Honolulu Hawaii, U.S.A.

The author is thankful to the Director, Zoological Survey of India, Calcutta for providing necessary facilities and to the Curator, Bishop P. Museum, Honolulu, Hawaii for placing at my disposal these interesting specimens for study.

**Distribution of species represented in the collection
Table**

Distributional areas are denoted by numbers as 1. India, 2. China, 3. Thailand, 4. Laos, 5. Cambodia, 6. Vietnam and 7. Hong Kong.

Name of taxa	1	2	3	4	5	6	7
1. <i>Cranopygia viticollis</i> (Stål)	-	+	-	-	-	-	-
2. <i>Cranopygia modesta</i> (Bormans)	-	-	+	-	-	-	-
3. <i>Cranopygia manipurensis</i> Srivastava	-	-	+	-	-	-	-
4. <i>Cranopygia appendiculata</i> Hincks	-	-	-	+	-	-	-
5. <i>Cranopygia spenceri</i> sp.n.	-	-	-	-	-	+	-
DIPLATYINAE							
6. <i>Nannopygia nigriceps</i> (Kirby)	-	-	-	-	-	-	+
7. <i>Diplatys gressitti</i> sp.n.	-	-	-	+	-	-	-
8. <i>Diplatys kiranae</i> sp.n.	-	+	-	-	-	-	-
9. <i>Diplatys nakasonei</i> Nishikawa	-	-	-	-	-	+	-
10. <i>Diplatys degerboliae</i> Ramamurthi	-	-	-	+	-	-	-
11. <i>Diplatys steinmanni</i> sp.n.	-	-	+	-	-	-	-

Contd.

Name of taxa	1	2	3	4	5	6	7
12. <i>Diplatys yunnaneus</i> Bey-Bienko			-	+		-	-
13. <i>Haplodiplatys fukiensis</i> sp.n.	-	+			-		
ECHINOSOMATINAE							
14. <i>Echinosoma maai</i> sp.n.		-	+	-	-	-	-
15. <i>Echinosoma albisquama</i> Bey-Bienko	-	-	+	+		-	-
16. <i>Echinosoma convolutum</i> Hincks	-	-	-	-	-	+	-
17. <i>Echinosoma sumatranum</i> (Haan)	-	-	+	+	-	+	-
18. <i>Echinosoma horridum</i> Dohrn	-	-	+		-	-	
PROLABISCINAE							
19. <i>Prolabisca infernalis</i> (Burr)			+	-	-	-	-
ANISLABOIDEA							
ANISOLABIDIDAE							
PLATYLABINAE							
20. <i>Platylabia major</i> (Dohrn)	-	-	+	+	-	+	-
PLACOLABIDINAE							
21. <i>Placolabis brindlei</i> Srivastava	-			+	-	-	-
ANISOLABIDINAE							
22. <i>Epilandex acuminata</i> sp.n.	-	-		-	-	-	+
23. <i>Euborellia annulipes</i> (Lucas)	-	+	-	-	-	-	-
24. <i>Euborellia annulata</i> (Fabricius)		+	-	-	-	-	-
25. <i>Euborellia femoralis</i> (Dohrn)			-	+	-	-	-
26. <i>Euborellia plebeja</i> (Dohrn)	-	-	+	+	-	+	-
27. <i>Euborellia obtusa</i> sp.n.				+	-	-	-
28. <i>Mongolabis depressus</i> sp.n.	-	+	-	-	-	-	-
29. <i>Mongolabis acuta</i> sp.n.	-	+	-	-	-	-	
30. <i>Mongolabis affinis</i> Ramamurthi	-	-	+	-	-	-	-
31. <i>Mongolabis emarginatus</i> sp.n.				-	-	+	-
32. <i>Mongolabis fukiensis</i> sp.n.		+			-	-	-
33. <i>Mongolabis formosae</i> (Borelli)		+	-			-	-
LABIDURIDAE							
ALLOSTETHINAE							

Name of taxa	1	2	3	4	5	6	7
34. <i>Allostethus indicum</i> (Burmeister)			+	-		-	
35. <i>Gonolabidura spenceri</i> sp.n.				-		+	
NALINAE							
36. <i>Nala lividipes</i> (Dufour)	+	+	+	+	+	+	
37. <i>Nala nepalensis</i> (Burr)		+		-		+	
LABIDURINAE							
38. <i>Labidura riparia</i> (Pallas)	+	+	+	+		+	+
39. <i>Forcipula quadrispinosa</i> (Dohrn)	-	+	-	-		-	
APACHYOIDEA							
40. <i>Apachyus feae</i> Bormans	-	-	+	+	-	+	
41. <i>Apachyus chartaceus</i> Haan	-	-	-	-		+	
42. <i>Apachyus brindleyi</i> Srivastava			-	+			
FORFICULOIDEA							
SPONGIPHORIDAE							
RUDRAXINAE							
43. <i>Rudrax brindleyi</i> Srivastava	-	+	-	-	-		-
SPONGIPHORINAE							
44. <i>Marava arachidis</i> (Yersin)	-	+	-	-	-		
45. <i>Spongovostox mucronatus</i> (Stål)			+	-	-		
46. <i>Spongovostox semiflavus</i> (Bormans)			+	+		+	
IRDEXINAE							
47. <i>Irdex nitidipennis</i> (Bormans)	-	-	+	+	-	-	
GERACINAE							
48. <i>Pseudovostox brindleyi</i> sp.n.							+
49. <i>Pseudovostox faciatus</i> (Bormans)			+	-	-	+	
50. <i>Pseudovostox bicolor</i> Borelli	-			-		+	
LABIINAE							
51. <i>Apovostox stella</i> (Bormans)			+	-		+	
52. <i>Chaetospania lanceolata</i> Borelli		-	+	+	-	-	
53. <i>Chaetospania silvestrii</i> Borelli		-	+				
54. <i>Circolabia curvicauda</i> (Motschulsky)	-	+	+	-			+

Contd.

Name of taxa	1	2	3	4	5	6	7
CHELISOCHIDAE							
CHELISOCHINAE							
55. <i>Eueukrates brindlei</i> sp.n.	-	-	+	-	-	-	-
56. <i>Adiathetus glaucopterus</i> (Bormans)	-	-	+	-	-	-	-
57. <i>Adiathetus maai</i> sp.n.	-	-	+	-	-	-	-
58. <i>Hamaxas feae</i> (Bormans)	-	-	+	-	-	-	-
59. <i>Hamaxas kozlovi</i> Semenov & Bey-Bienko	-	+	-	-	-	-	-
60. <i>Proreus abdominalis</i> Ramamurthi	+	-	-	-	-	+	-
61. <i>Proreus simulans</i> (Stål)	-	+	+	+	-	-	-
FORFICULIDAE							
OPISTHOCOSMIINAE							
62. <i>Hypurgus fulvus</i> Burr	-	-	-	-	-	+	-
63. <i>Paratimomenus yoshimotoi</i> sp.n.	-	-	-	-	-	+	-
64. <i>Paratimomenus flavocapitatus</i> (Shiraki)	-	+	-	-	-	-	-
65. <i>Timomenus aeris</i> (Shiraki)	-	+	-	-	-	+	-
66. <i>Timomenus lugens</i> (Bormans)	-	-	+	+	-	-	-
67. <i>Timomenus oannes</i> (Burr)	-	+	-	-	-	-	-
68. <i>Timomenus gressitti</i> sp.n.	-	+	-	-	-	-	-
69. <i>Eparchus simplex</i> (Bormans)	-	+	-	-	-	-	-
70. <i>Eparchus insignis</i> (Haan)	-	+	+	+	-	+	-
71. <i>Eparchus spatulatus</i> sp.n.	-	-	-	-	-	+	-
72. <i>Cordax armatus</i> (Haan)	-	+	+	+	-	+	-
ALLODAHLINAE							
73. <i>Allodahlia scabriuscula</i> (Serville)	-	+	-	+	-	+	-
74. <i>Allodahlia coriacea</i> (Bormans)	-	-	+	+	-	+	-
ANECHURINAE							
75. <i>Anechura externa</i> Bey-Bienko comb.n. (= <i>Oreasiobia chinensis</i> Steinmann-syn.n.)	-	+	-	-	-	-	-
76. <i>Anechura crinitata</i> (Shiraki)	-	+	-	-	-	-	-
77. <i>Anechura japonica</i> (Bormans)	-	+	-	-	-	-	-
EUDOHRNIINAE							
78. <i>Eudohrnia zae</i> (Liu, 1946)							

Name of taxa	1	2	3	4	5	6	7
(= <i>Eudohrnia hirsuta</i> Zhang, Ma & Chen, 1992 – syn.n.)	-	+	-	-	-	-	-
79. <i>Eudohrnia metallica</i> (Dohrn)	-	+	-	+	-	-	-
80. <i>Pterygida eurypyga</i> Bey-Bienko	-	+	-	-	-	-	-
81. <i>Pterygida intermedia</i> (Borelli)	-	-	-	+	-	-	-
82. <i>Pterygida annandalei</i> (Burr)	-	-	-	+	-	-	-
FORFICULINAE							
83. <i>Elaunon bipartitus</i> (Kirby)	-	+	-	+	-	+	-
84. <i>Forficula sinica</i> Bey-Bienko	-	+	-	-	-	-	-
85. <i>Forficula carinata</i> Zhang & Yang	-	+	-	-	-	-	-
86. <i>Forficula berezoviki</i> Bey-Bienko	-	+	-	-	-	-	-
87. <i>Forficula ornata</i> Bormans	-	+	+	-	-	-	-
88. <i>Forficula biplaga</i> Bey-Bienko	-	+	-	-	-	-	-
89. <i>Forficula interrogans</i> (Burr)	-	+	-	-	-	-	-
90. <i>Forficula mandarina</i> Borelli	-	+	-	-	-	-	-

SYSTEMATIC ACCOUNT

PYGIDICRANIDAE

PYGIDICRANINAE

1. *Cranopygia viticollis* (Stål)

(figs 1–9)

Material examined : S. CHINA : Chugan, Bohea, Hills, 1 Male (genitalia attached) 1.v.1940; Yungan, 1 Male (genitalia attached), 26.iv.1940 (*T. C. Maa* coll.).

Measurements : Male : Length: body – 15.8-17.0 mm; forceps – 3.0-3.5 mm.

Distribution : South China; Hong Kong and Vietnam.

Remarks : General colour black; basal antennal segment brownish, remaining segments blackish; pronotum yellowish with a broad black longitudinal stripe in either half; legs yellowish brown. Elytra abbreviated. Wings absent. Genitalia with parameres elongated, internally above with sharp hooked tooth, often inner margin of this hook provided with a short tubercle; virga long and slender.

2. *Cranopygia modesta* (Bormans)

Material examined : THAILAND : Mae Sa, Chiang Mai Prov., 1 Male (genitalia attached), 16.vi.1965 (*P. D. Ashlock* coll.) – U.S. Japan Sci. Coop. Prog.

Measurements : Male : Length : body– 16.0 mm; forceps 3.0 mm.

Distribution : S. India (Borelli, 1931); Myanmar, Java, Sumatra, Borneo and Philippines (based on 2 Females only) and Thailand.

3. *Cranopygia manipurensis* Srivastava

(figs. 10–14)

Material examined : THAILAND S. Banna, Nakhon, 108 m, 1 Male (genitalia attached), 5-10.v.1958 (*T. C. Maa* coll.).

Measurements : Male : Length : body – 23.0 mm; forceps – 4.5 mm.

Distribution India (Manipur) and Thailand (new record).

4. *Cranopygia appendiculata* Hincks

(figs 15–22)

Material examined : LAOS Sedone Prov.; Paksong, 1 Male (genitalia attached), 18.v.1965 (*P. D. Ashlok* coll.).

Measurements : Male : Length body–19.0 mm; forceps–5.0 mm.

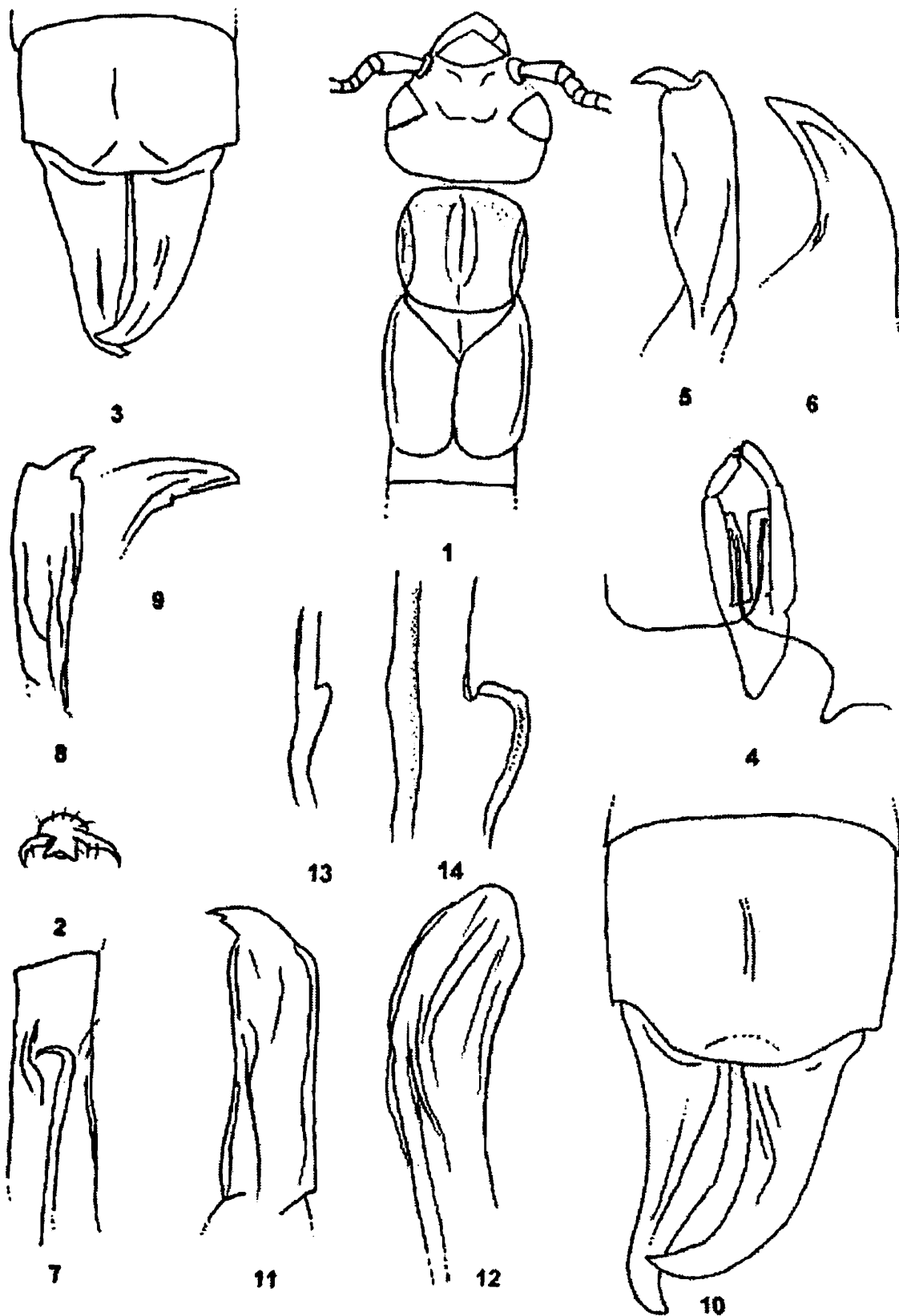
Distribution : French Indo-China and Laos.

Remarks : Pronotum is about as broad as long, sides and anterior margin convex, hind margin truncate; penultimate sternite rounded posteriorly. Ultimate tergite with a faint, oblique carina laterally.

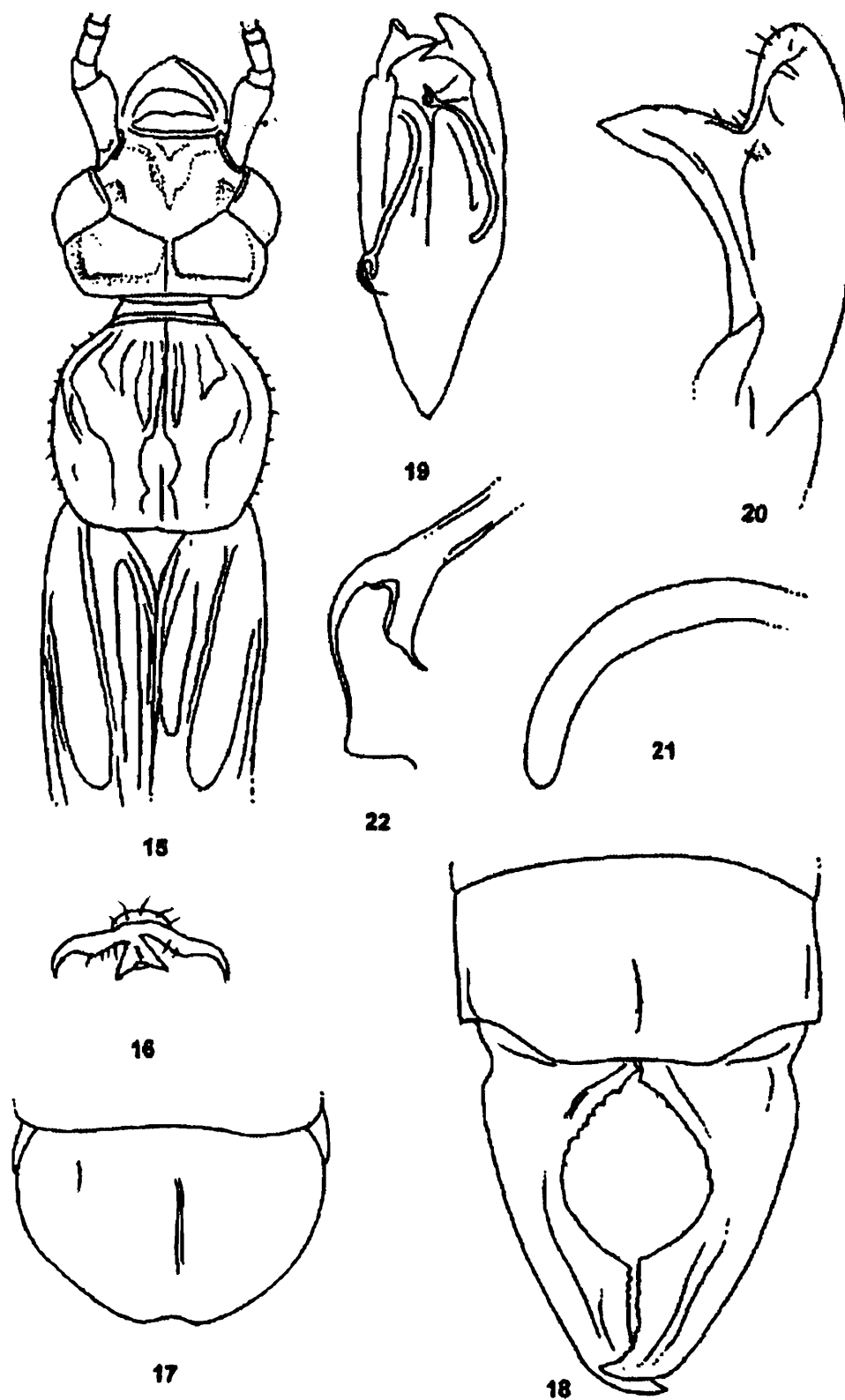
5. *Cranopygia spenceri* sp.n.

(figs 23 – 31)

Male : Head in middle yellow; mouth parts laterally and posteriorly black or with faint blackish stripes posteriorly; antennae blackish brown; eyes black; pronotum yellowish with broad blackish stripes on either side of middle line and also with a narrower oblique stripe extending from antero-lateral angle to middle of the length and joining with broader stripe, whole colour pattern not very distinct; elytra yellow with four black longitudinal stripes, narrower one along the external and internal margin with two



Figs. 1-14 : *Cranopygia viticollis* (Stål), Male; 1. Anterior portion of body; 2. Claw with an arolium; 3. Ultimate tergite and forceps; 4. Genitalia; 5. Paramere, enlarged; 6. Tip of paramere, enlarged; 7. Base of distal lobe, enlarged; 8. Paramere, enlarged; 9. Tip of paramere, enlarged (figs. 8 & 9 from the larger Male); *Cranopygia manipurensis* Srivastava, Male; 10. Ultimate tergite and forceps; 11. Paramere, enlarged; 12. Base of distal lobe, enlarged; 13. A portion of virga, with a tubercle; 14. Same portion of virga, enlarged.



Figs. 15-22 : *Cranopygia appendiculata* Hincks, Male, 15. Anterior portion of body; 16. Claw with an arolium; 17. Penultimate sternite; 18. Ultimate tergite and forceps; 19. Genitalia; 20. Paramere, enlarged; 21. Basal portion of virga, enlarged; 22. Apical portion of virga, enlarged.

median ones a little broader, but all joining posteriorly; wings yellow with a broad black stripe externally; abdomen, ultimate tergite and forceps blackish with traces of red in the posterior half of abdominal tergites and base of forceps.

Head longer than broad, depressed above in middle and faintly raised behind eyes, sutures obsolete, hind margin feebly emarginate. Antennae typical of the genus, but segments on left side deformed and of the right normal. Pronotum about as long as broad or a trifle longer, anteriorly convex, sides very slightly convex in middle, hind margin truncate, sparsely tuberculated, especially close to hind margin, median suture distinct, faint in posterior $\frac{1}{4}$; prozona raised and metazona depressed, both differentiated by a transverse depression in posterior $\frac{1}{4}$. Elytra and wings well developed former with numerous small tubercles; a triangular scutellum visible. Abdomen finely pubescent, smooth, gradually enlarging posteriorly up to 9th sternite. Penultimate sternite punctate, narrowed posteriorly, sides convex, posteriorly rounded with slight emargination in middle, margin along the emargination thickened. Ultimate tergite rugose, transverse, gently widened posteriorly, laterally with a rugose carina, hind margin in middle straight, thickened above, laterally oblique and emarginate, disc depressed above, median sulcus distinct. Forceps with branches stout, depressed, on underside somewhat deplanate with long, fine pubescence, tapering posteriorly, diverging from base to a little beyond basal half, afterwards abruptly bent inwards with apices pointed and hooked, internal margin near base provided with one or two teeth ventrally and followed by minute tubercles up to a little beyond middle, thence branches unarmed except for a large tooth followed by several minute ones a little before apex. Genitalia with one distal lobe flexed forward; virga thick at base with several transverse folds, tapering apically and provided with a thick internal process at about basal one third.

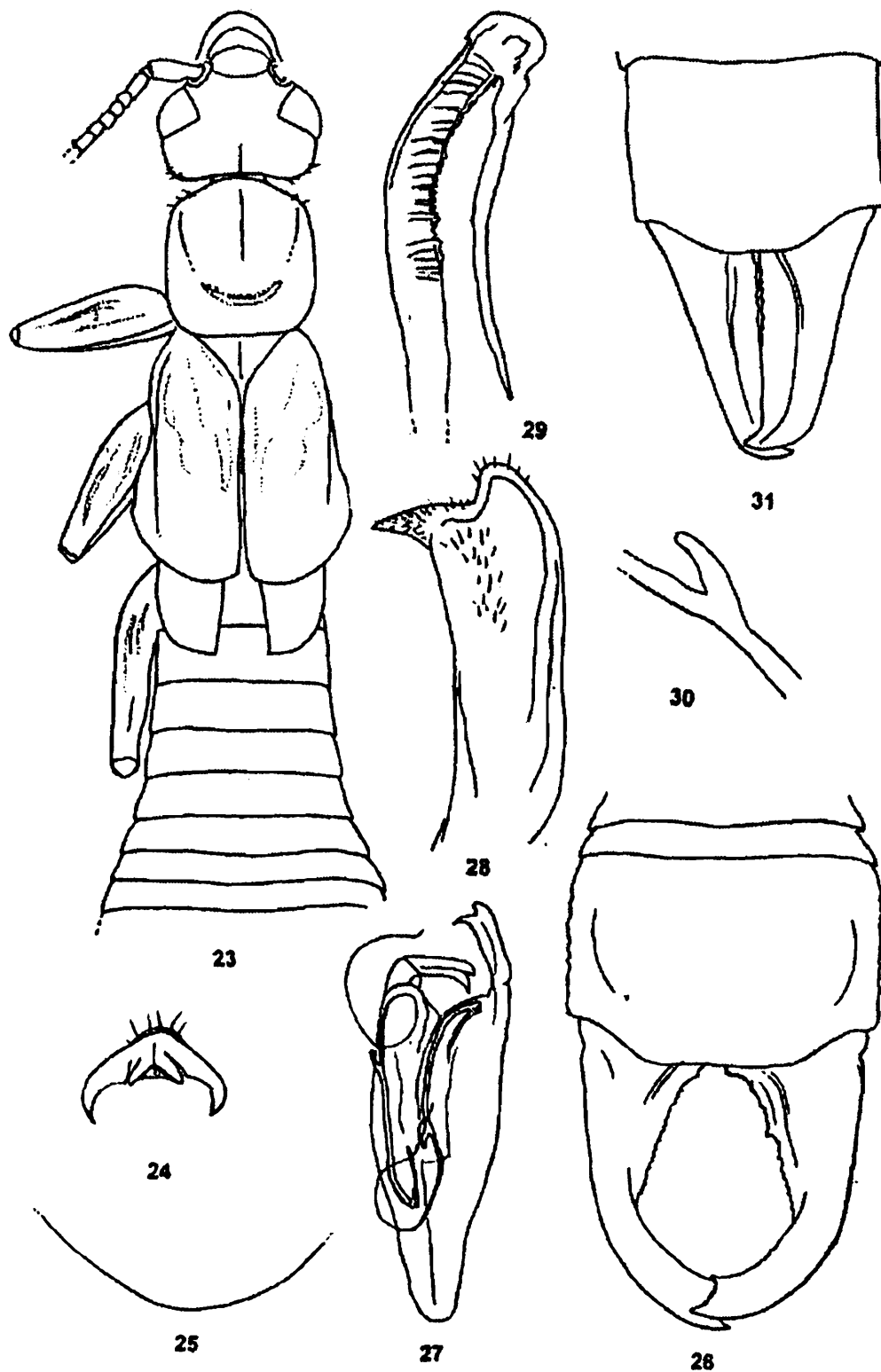
Female : Agrees with males in most characters except that penultimate sternite triangular; ultimate tergite narrower and forceps simple and straight.

Measurements : (in mm)

	Holotype Male	Paratypes 2 Males	2 Females
Length of body	31.5	29.0-33.0	28.0-33.0
Length of forceps	6.0	6.5	5.0-6.0

Material examined : Holotype Male (genitalia mounted between two coverslips and attached to the pin of specimen), VIETNAM : Mt. Land, Bian, 1500-2000 m, 19.v.-8.vi.1961; Paratypes : 1 Male, 3 Females, 1 nymph, same data; 1 Male, Dalat 6 Kms, 1000-1500 m, 9.vi-7.vii.1961 (*N. R. Spencer* coll.).

Remarks : In having bifurcate virga, this species comes close to *C. appendiculata* Hincks from Vietnam but differs by the shape of parameres and virga.



Figs. 23-31 : *Cranopygia spenceri* sp.n., Holotype Male; 23. Anterior portion of body, except ultimate tergite and forceps; 24. Claw with an arolium; 25. Hind portion of penultimate sternite; 26. Ultimate tergite and forceps; 27. Genitalia; 28. Paramere, enlarged; 29. Basal portion of virga, enlarged; 30. A portion virga with external prolongation; Female; 31. Ultimate tergite and forceps.

6. *Nannopygia nigriceps* (Kirby)

(fig. 32)

Material examined : HONG KONG : Taipokau, 1 Male (genitalia attached), 1.vi.1964; 1 Male same data, 2-6.vii.1964, Lee Kit & Hui Wai Ming, light trap; 1 Female, same data, 15.vi.1964, W. J. Vose & Wai Ming Hui, Malaise trap; Hong Kong Island, 1 Female, 23.iv.1965 (C.M. Yoshimoto coll.).

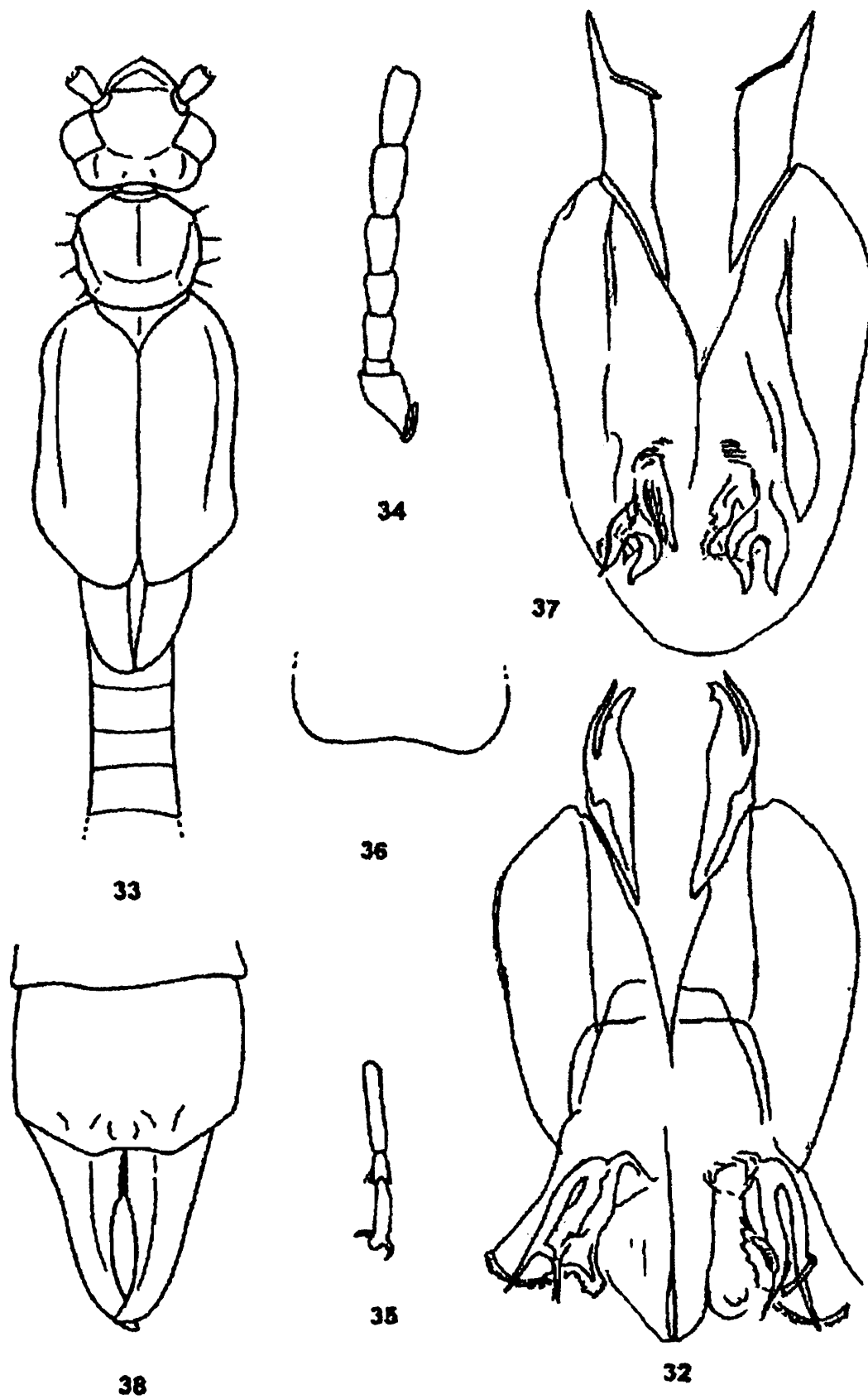
Remarks : This species was hitherto described on males. The female, is reported here for the first time, differs from male in having distinct sutures on head, post-ocular carina obsolete; penultimate obtusely rounded posteriorly; ultimate tergite more contracted posteriorly and forceps simple and straight.

7. *Diplatys gressitti* sp.n.

(figs 33-38)

Male : General colour brownish black; antennal segments except basal one light brown; pronotum on sides, knee joints and tarsi, wings at base internally with a yellow patch and extending apically as narrow stripe and forceps near base externally yellow; abdominal tergites light reddish brown but 9th and ultimate tergites blackish brown. Fine yellow pubescence present all over body except pronotum.

Head longer than broad, smooth, frons moderately raised and occiput depressed; post-ocular carina distinct, dying out a little before posterior margin, median sulcus distinct, transverse suture obsolete. Eyes prominent, distinctly longer than the post-ocular area. Antennae partly broken (16-segments on the left and 12 on the right side remaining), basal segment darker than the rest, expanded apically, shorter than the distance between scapi; 2nd small, transverse; 3rd long and slender; 4th slightly shorter, stouter than 3rd and gently expanded apically; 5th as long as 3rd but stouter, remaining gradually increasing in length distally. Pronotum about as long as broad, anteriorly convex, sides rounded with a few stiff hairs on margin, gently contracted posteriorly, hind margin subtruncate, median sulcus faint; prozona raised and metazona depressed. Legs long and slender, hind tarsi with 1st segment longer than the 3rd and claw with an arolium. Elytra and wings well developed; a small triangular scutellum visible. Abdomen long, cylindrical, slightly enlarged from 7th to 9th tergites, smooth, sides of segments rounded. Penultimate sternite slightly emarginate in middle posteriorly. Ultimate tergite weakly transverse, smooth, disc raised above, gently sloping and expanding backwards, faintly depressed in middle posteriorly with slightly raised area in the centre of depression, hind margin trisinate, laterally oblique. Forceps contiguous and deplanate in basal 1/3, afterwards branches tapering apically and slightly incurved enclosing an elongated elliptical space, apices gently hooked and pointed, internal margin of dilated portion dentate, afterwards smooth. Genitalia as seen in fig. 37.



Figs. 32-38 : *Nannopygia nigriceps* (Kirby), Male; 32. Genitalia; *Diplutys gressitti* sp.n., Holotype Male; 33. Anterior portion of body; 34. A few basal antennal segments. 35. Hind tarsi; 36. Posterior half of penultimate sternite; 38. Genitalia; 38. Ultimate tergite and forceps.

Measurements: Length : body – 11.1 mm; forceps – 1.1 mm.

Female: Unknown.

Material examined : Holotype Male (genitalia mounted between coverslips and attached to the pin of the specimen), LAOS : Vientiane Prov., Phou Kou Khouei Ban Van Eue, 15.iv.1965 (*J. L. Gressitt* coll.).

Remarks : This species is closely related to *D. griffithsi* Burr, from Borneo but differs by the shape of penultimate sternite in being slightly emarginate in middle; forceps deplanate in basal one third and characteristic male genitalia.

This species is named after Dr. J. L. Gressitt, the Collector of the species.

8. *Diplatys kiranae* sp.n.

(figs 39–42)

Male: General colour brownish black, mouth parts, pronotum on sides and posteriorly, scutellum, knee joints and tarsi yellowish brown. Antennae with 1st joint brownish black, 3rd to 5th yellowish brown and remaining smoky brown.

Head smooth, frons raised post-ocular carina distinct, running up to hind margin, median sulcus distinct, transverse suture obsolete but with a linear depression, hind margin emarginate. Eyes prominent and longer than post-ocular area. Antennae partly broken (basal segment on left and 15 basal segments on the right side remaining), 1st segment stout, shorter than the distance between scapi, expanded apically; 2nd transverse; 3rd long and slender; 4th slightly shorter than preceding, gently expanded apically; 5th almost equal to 3rd but gently expanded apically, remaining gradually increasing in length and each gently narrowed at base and expanded apically. Pronotum slightly longer than broad, anterior margin convex, sides straight, contracted posteriorly, hind margin subtruncate, median sulcus distinct, prozona raised, metazona depressed and well differentiated from the former by a transverse depression in posterior 1/3. Elytra and wings smooth, pilose; a small scutellum visible. Legs long and slender, typical of the genus, hind tarsi with 1st segment long and slender, about twice as long as the third; 2nd small about half as long as the 3rd. Abdomen long, slender, gently widened posteriorly, tergites finely pubescent, smooth. Penultimate sternite with a broad triangular depression, hind margin deeply emarginate in middle. Ultimate tergite transverse, smooth, pilose, gently widened posteriorly, raised above in middle, median sulcus faintly marked in middle, hind margin trisinate, laterally oblique. Forceps with branches subcontiguous, depressed, straight, tapering apically, tip pointed and gently hooked, internal margin finely crenulate and pubescent. Genitalia as seen in fig. 42.

Measurements : Length: body – 8.9 mm; forceps – 0.9 mm.

Female : Unknown.

Material examined : Holotype Male (genitalia mounted between two coverslips and attached to the pin of specimen), S. CHINA: Fukien, Chungan, Bohea Hills, 13.i.1941 (T. C. Maa coll.).

Remarks : This species comes close to *D. gressitti*, described in preceding pages, in general appearance and shape of penultimate sternite but differs by the shape of pronotum with sides straight; forceps simple and straight and characteristic genitalia with distinctive parameres and virga.

It is named after authors wife, Smt. Kiran Srivastava.

9. *Diplatys nakasonei* Nishikawa

(fig 43)

Material examined : VIET NAM : E. of BanMe Thout, 4-600m, 1 Male (genitalia attached), 8-19.xii.1960, Light trap (Y. Yoshimoto coll.).

Distribution : Viet-Nam.

10. *Diplatys degerboliae* Ramamurthi

(fig 44)

Material examined : LAOS : Phoukawkue, 800 m, 1 Male (genitalia attached), 16.iv.1965 (J. L. Gressitt coll.).

Distribution : Thailand and Laos (first record).

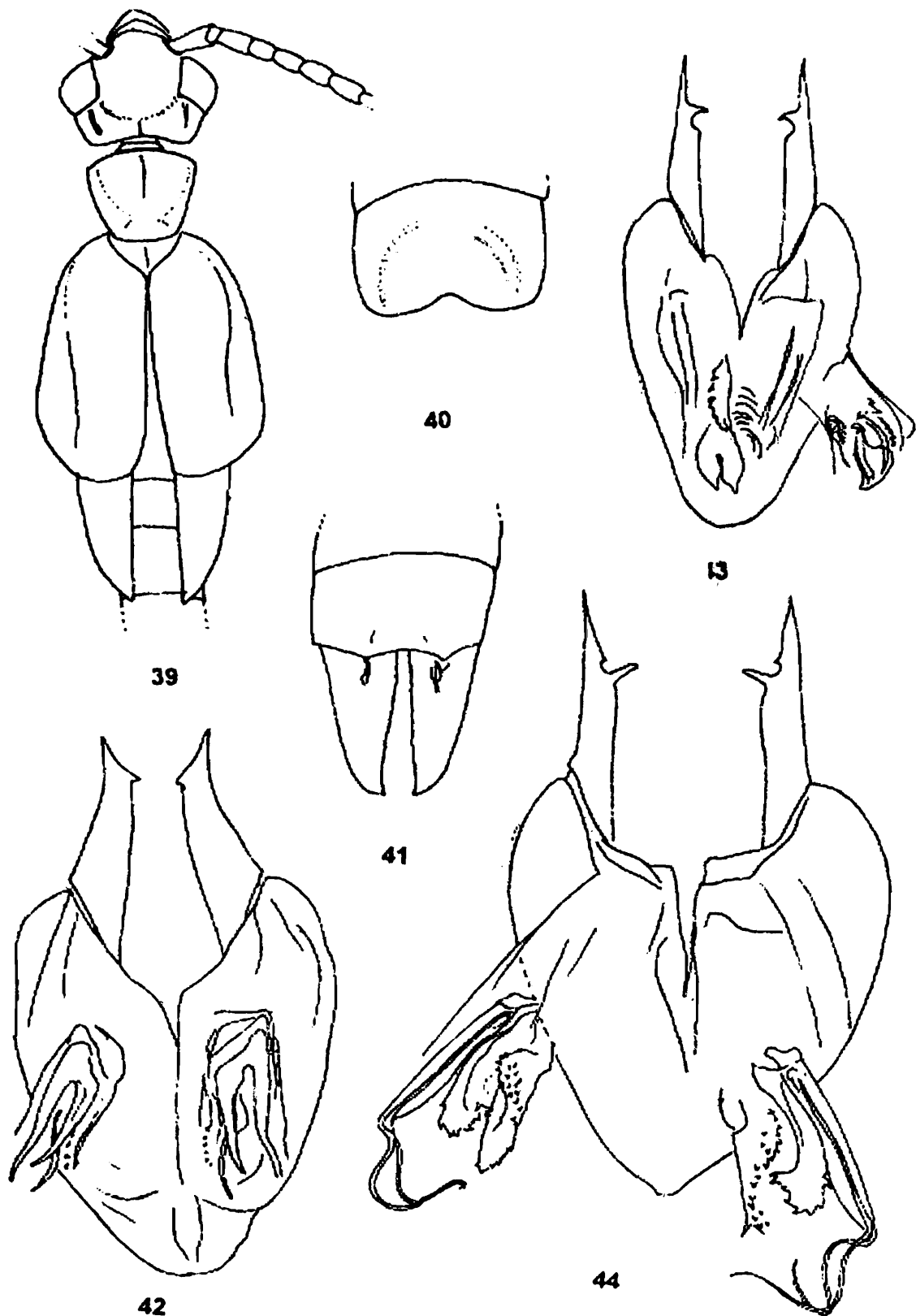
Remarks : The present specimens agrees with the original description of the species except following :

Post-ocular carina distinct, dying out only a little before hind margin; forceps with branches deplanate in a little less than basal half and internally serrated, afterwards tapering, incurved, apices gently hooked and pointed, inner margin smooth and paramere with inner tooth more strongly produced.

11. *Diplatys steinmanni* sp.n.

(figs 45-49)

Male : General colour dark brown; mouth parts and antennae light yellowish brown; legs light yellow, fore- and middle femora in apical two thirds and tibiae in basal half and hind femora from basal one third to a little before apex and tibia in basal half dark brown; abdominal tergites darker and ultimate tergite somewhat lighter and forceps in basal half yellowish and in remaining half light brown. Sparsely pubescent.



Figs. 39-44 : *Diplatys kiranae* sp.n., Holotype Male, 39. Anterior portion of body; 40. Penultimate sternite; 41. Ultimate tergite and forceps; 42. Genitalia; *Diplatys nakasonei* Nishikawa, Male, 43. Genitalia; *Diplatys degerboliae* Ramamurthi, Male, 44. Genitalia.

Head about as long as broad, widest in the region of eyes, frons tumid and occiput depressed, transverse suture obsolete median suture distinct, hind margin emarginate in middle, post-ocular carina sharp, curved, running from middle of the internal margin of eye to the hind margin of head. Antennae partly broken (basal segment on the left and 17 on the right side present), 1st stout, gently expanded apically, slightly shorter than the distance between scapi; 2nd short, transverse; 3rd long and slender; 4th only slightly longer than broad, shorter and stouter than 3rd; 5th almost equal to 3rd but stouter; remaining segments gradually lengthening and thinning distally. Eyes prominent, only a shade shorter than double the post-ocular length. Pronotum smooth, about as long as broad, gently contracted posteriorly, anterior margin convex, sides straight, hind angles and margin broadly rounded, median sulcus faint, prozona weakly raised and metazona depressed. Elytra and wings normal, smooth, pubescence on sides only; a small triangular scutellum visible. Legs long, slender, hind tarsi with 1st segment about twice as long as the 3rd; 2nd segment about half as long as the 3rd, claw with an arolium. Abdomen long, cylindrical, smooth, covered with fine and short pubescence, segments 8th and 9th slightly enlarged. Penultimate sternite with posterior margin truncate. Ultimate tergite smooth, about as long as broad, disc raised, gently sloping backwards, contracted posteriorly, hind margin trisinate, laterally oblique. Forceps pubescent, depressed, straight, tapering apically, apices pointed and gently hooked, internal margin finely crenulate, at base with a triangular vertical crest. Genitalia as seen in fig. 49.

Measurements : Length : body – 9.9 mm; forceps – 1.45 mm.

Female Unknown.

Material examined : Holotype Male (genitalia mounted between two coverslips and attached to the pin of the specimen), THAILAND : Banna, 5-10.v.1958 (*T.C.Maa* coll.).

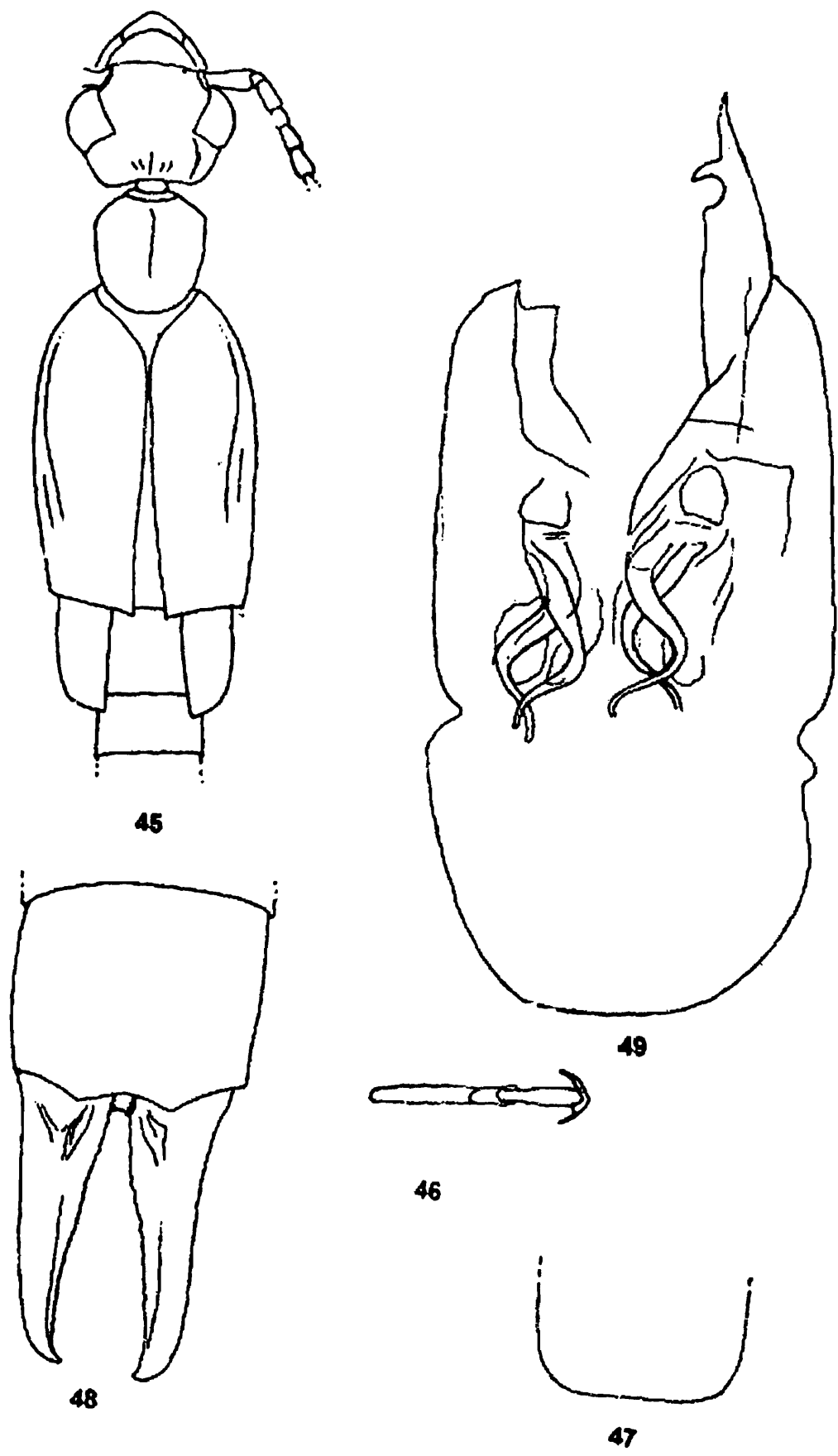
Remarks : It comes close to *Diplatys liberatus* Burr, from Myanmar but differs by the shape of male parameres and virga.

This species is named after Dr. H. Steinmann of Hungarian Natural History Museum, Budapest in recognition of his valuable work on Dermaptera.

12. *Diplatys yunnaneus* Bey-Bienko

Material examined : LAOS : Vientiane Prov., Ban Van Eue, 1 Male (genitalia attached), 15.x.1967, (Light trap Collection *Native* coll.).

Distribution : China (Yunnan), and Laos (first record).



Figs. 45-49 : *Diplatys steinmanni* sp.n., Holotype, Male, 45. Anterior portion of body; 46. Hind tarsi; 47. Posterior half of penultimate sternite; 48. Ultimate tergite and forceps; 49. Genitalia.

13. *Haplodiplatys fukiensis* sp.n.

(figs 50-55)

Male : General colour brownish black; elytra light brown; apical part of tibiae and whole of tarsi yellowish, abdominal tergites dark reddish brown. Finely pubescent.

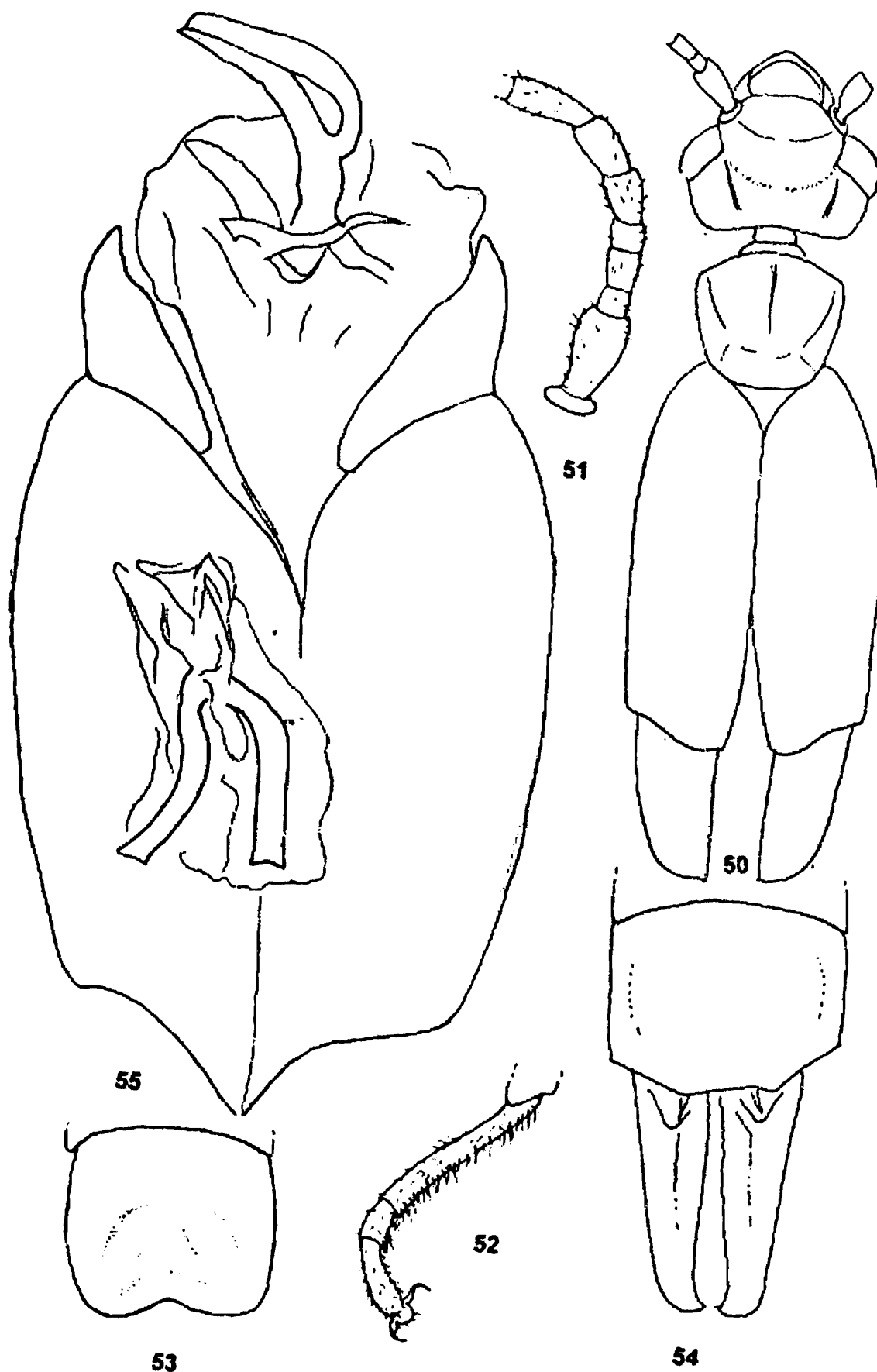
Head weakly transverse, widest in the region of eyes, glabrous and smooth, hind margin emarginate in middle, frons weakly raised and occiput depressed but the area behind eyes somewhat raised, post-ocular carina absent, transverse suture obsolete and median suture distinct. Eyes prominent, only slightly longer than post-ocular area. Antennae partly broken (in Holotype Male 8 segments on the left and 15 on the right and in Paratype Male 17 on the right and 12 on the left side are remaining), basal segment stout, expanded apically and slightly shorter than the distance between scapi; 2nd transverse; 3rd long & slender; 4th shorter than 3rd; 5th almost equal to 3rd, remaining gradually increasing in length and thinning distally. Pronotum about as long as broad, anteriorly convex, gently contracted posteriorly, sides gently reflexed and convex, hind margin rounded, median sulcus distinct, prozona raised and well differentiated from flat metazona. Elytra and wings normal; a small triangular sentellum visible. Legs long and slender, hind tarsi with first segment about twice as long as the third. Abdomen long and slender, convex, parallel sided, smooth, long pubescence present on sides. Penultimate sternite with a deep concavity in middle posteriorly, hind margin truncate with a faint emargination in middle. Ultimate tergite transverse, convex above in middle, sloping backwards, hind margin trisinate, laterally oblique. Forceps subcontiguous, depressed, tapering apically, tip gently hooked and pointed, inner margin finely crenulate. Genitalia as seen in fig. 55.

Measurements : Length : body – 10.7-11.8 mm; forceps – 1.2-1.3 mm.

Female: Agrees with males in most characters except that the penultimate sternite obtusely rounded in middle posteriorly and ultimate tergite narrower. *Measurements*: Length: body – 12.1-14.5 mm; forceps – 1.3-1.5 mm.

Material examined : Holotype Male (genitalia mounted between two coverslips and attached to the pin of the specimen) : S. CHINA, Fukien, Shaowu, Tachulan, 1000 m, 9-13.v.1943; Paratypes 1 Male, 1 Female, same data, 3.vi.1943; Paratype 1 Female, same data, .. v. 1943; Paratype 1 Female, same data, 10.iv.1943; Paratype 1 Female, same data, 26-29.v.1943 T. C. Maa coll.

Remarks: This species comes close *H. stemmleri* Brindle, known from Sikkim and North Bengal (Darjeeling Dist.) in India but differs by the penultimate in being almost truncate along the posterior margin with a faint emargination in middle and distinctive genitalia, especially virga.



Figs. 50-55 : *Haplodiplatys fukiensis* sp. n; Holotype Male; 50. Anterior portion of body; 51. A few basal antennal segments; 52. Hind tarsi; 53. Penultimate sternite; 54. Ultimate tergite and forceps; 55. Genitalia.

ECHINOSOMATINAE

14. *Echinosoma maai* sp.n.

(figs 56–61)

Male: General colour blackish brown; two basal antennal segments, sides and posterior half of pronotum yellow; legs yellow, anterior pair with femora apically and tibiae blackish whereas middle and hind ones with femora and tibia banded with black in basal one third; wings yellow with an oval blackish brown spot apically; abdominal pattern very faint, represented by light brown spots along the median and lateral lines. Pubescent with very long setae, especially on sides of elytra and margin of abdominal tergites.

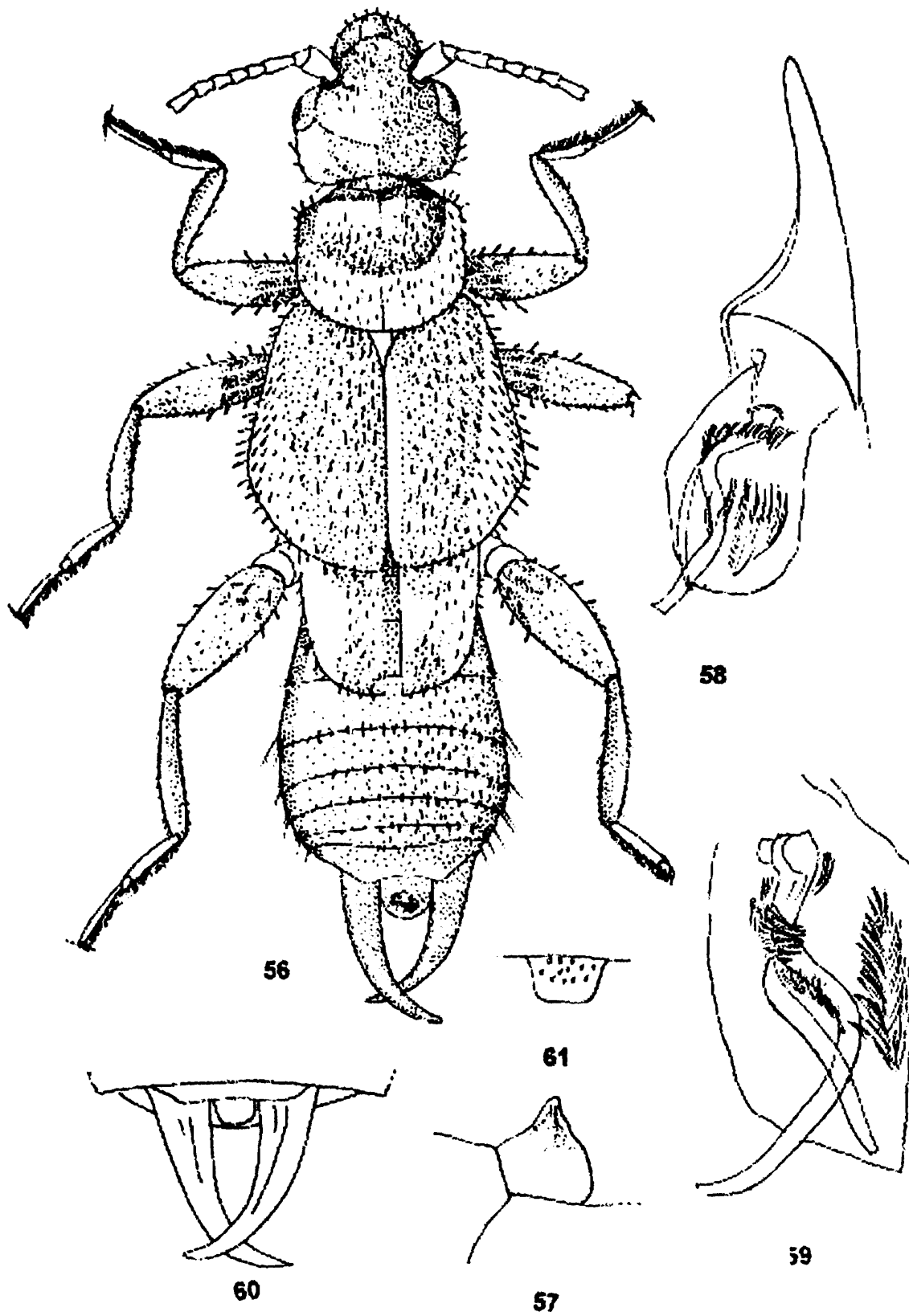
Head with frons weakly raised, sutures fine, hind margin emarginate, post-ocular area with two faint depressed stripes. Eyes nearly as long as post-ocular area. Antennae (partly broken) on the right only basal segment and on the left 21 segments remaining, 1st segment stout, gently expanded apically, shorter than the distance between scapi; 2nd about as long as broad; 3rd long and slender; 4th to 5th very slightly clavate; 6th onwards segments gradually increasing in length distally. Pronotum transverse, sides straight, moderately reflexed, hind angles and margin broadly rounded, median sulcus distinct; prozona raised and well demarcated from depressed metazona by a transverse depression. Elytra and wings normal. Legs typical of the genus, hind tarsi with 1st segment almost equal to third, claw with a small arolium. Abdomen punctate, with long setae, enlarged in middle, sides of segments rounded. Penultimate sternite punctate, hind margin sinuate in middle. Ultimate tergite transverse, smooth, trisinate, laterally oblique. Pygidium forming a large rounded lobe, filling the space between forceps, produced into a sharp pointed spine above posteriorly. Forceps long, cylindrical, tapering apically, gently incurved in apical 1/3, tips hooked and pointed. Genitalia as Assam in figs. 58 & 59. *Measurements* : Length: body – 8.0 mm; forceps – 1.5 mm.

Female : Agrees with male in most characters except that colour slightly darker; abdominal pattern quite distinct and pygidium declivent, slightly narrowed posteriorly with hind margin subtruncate.

Measurements : Length : body – 9.7 mm; forceps – 1.1 mm.

Material examined : Holotype Male (genitalia mounted between two coverslips and attached to the pin of the specimen), Paratype 1 Female, THAILAND (nw): Doi Suthep, 1278 m, 29.iii.-4.v.1958 (T. C. Maa coll.).

Remarks : This species is a member of *Sumatranum* – group (Hincks, 1959) and shows close resemblance with *E. sumatranum* (Haan) but differs by the shape of pygidium and characteristic genitalia, in males. It can be however, differentiated from *E. convolutum* Hincks, by slightly shorter and less coiled virga and ecarinata sides of abdominal segments. It is difficult to separate the isolated females of above three species since these are alike morphologically.



Figs. 56-61 : *Echinotoma maii* sp.n., Holotype Male, 56. Dorsal view; 57. Base of forceps with pygidium, in lateral view; 58. Right paramere and distal lobe; 59. Left distal lobe, enlarged; Paratype Female; 60. Ultimate tergite and forceps; 61. Pygidium, enlarged.

15. *Echinosoma albisquama* Bey-Bienko

(figs 62-71)

Material examined : LAOS : Vientiane Prov., Ban Van Eue, 800 m, 1 Male (genitalia attached), 1 Female, 11.iv.1965 (*J.L. Gressitt* coll.); 1 Female, 15.vii.1966; 1 Male, 29.iii.1966, (*Native* coll.); THAILAND : N.W.Chiangmai Prov., Chiangdao, 450 m, 4 Males, 2 nymphs, 5-11.iv.1958, in a dead tree; Fang, 500 m, 2 Males, 15.iv.1958 (*T. C. Maa* coll.).

Distribution : China; Laos and Thailand (first record).

Remarks : This species was hitherto known from South China. Some specimens possess dark brownish wings either on one side only or both sides and forceps are less stout.

It has close resemblance with *E. philippinense* Hincks, but differs by general body colouration in being dark brownish black with basal antennal segment concolourous and rest of segments except 2nd which is somewhat yellowish and wings clear yellow and male genitalia distinctive in having armature and virga more strongly convoluted.

16. *Echinosoma convolutum* Hincks

Material examined : VIET NAM : BanMe Thout, 500 m, 1 Male (genitalia attached), 16-18.v.1960, (*R.E. Leech* coll.); 1 Female, same data (*L.W. Quate* coll.).

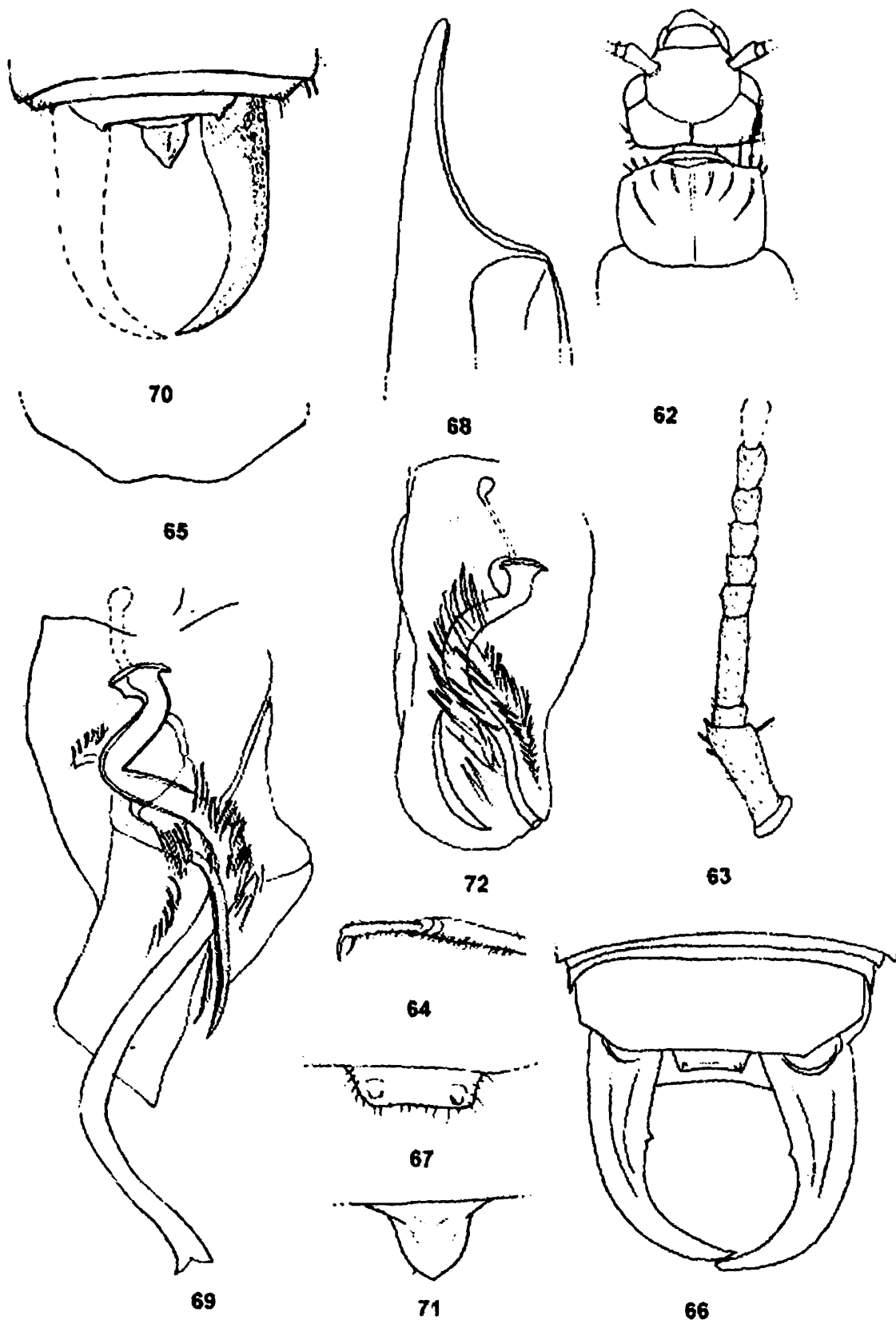
Distribution : India, Myanmar, Vietnam and S. China.

17. *Echinosoma sumatranum* (Haan)

(Fig 72)

Material examined : LAOS : Borikhana Prov., Pakkading, 1 Male (genitalia attached), 3.viii.1965; Sayaboury Prov., Sayaboury, 1 nymph, 14.xii.1965; Kyoung Prov., Ban Sam Thang, 1 Female, 30.xi.1965; Vientiane Prov., Tha Ngone, 1 Male (genitalia attached), 20.xi.1965 (all *Native* coll.); VIET NAM : BanMe Thout, 500 m, 1 nymph, 16-18.v.1960; M'Dark, E. of BanMe Thout, 4-600 m, 1 Male (genitalia attached), 8-19.xii.1960; THAILAND (c) : Pakchong, 100 m, NE. of Bangkok, 1 Male (genitalia attached), 1 Female (left branch of forceps missing), 2.xii.1957; 1 Male (genitalia attached), same data, 3.xii.1957 (*J.L. Gressitt* coll.); Doi Suthep, 1 Male (genitalia attached), 29-31.iii.1958; 1 Male (genitalia attached), 1 Female, same data, 1278 m, 29.iii.-4.v.1958 (*T. C. Maa* coll.).

Distribution : Widely distributed in Indo-Malayan Region and South China.



Figs. 62-72 : *Echinotoma albisquama* Bey-Bienko, Male, 62. Head, pronotum and a portion of elytra; 63. A few basal antennal segments; 64. Hind tarsi; 65. Hind portion of penultimate sternite; 66. Hind portion of body; 67. Pygidium, enlarged; 68. Paramere; 69. Distal lobe; Female, 70. Ultimate tergite and forceps; 71. Pygidium, enlarged; *Echinotoma sumatranum* (Haan), Male, 72. Apical portion of distal lobe.

18. *Echinosoma horridum* Dohrn

Material examined : THAILAND S : Banna, Nakhon, 1 Male (genitalia attached), 5-10.v.1958 (T. C. Maa coll.).

Distribution: Hitherto known from Java, Sumatra, Mentawai Is. and Borneo. First record from Thailand.

Subfamily PROLABISCINAE

19. *Prolabisca infernalis* (Burr)

Material examined : THAILAND (c) : Pakchong, 100 m, EN of Bangkok, 1 Female, 3.xii.1957 (J. L. Gressitt coll.); Chiangmai Prov., Doi Suthep, 1 Female, 18-31.iii.1958, (T. C. Maa coll.).

Distribution : Widely distributed in the Oriental Region.

Superfamily ANISOLABOIDEA

Family ANISOLABIDIDAE

Subfamily PLATYLABIINAE

20. *Platylabia major* Dohrn

Material examined : VIETNAM : Mt. Lang, Bian, 1500-2000 m, 1 nymph; Dalat, 6 km, 1400-1500 m, 1 Female, 9.vi.-7.vii.1966 (N. R. Spencer coll.); 17 km S of Dilinha, 1300 m, 12 nymphs (at various stages of development), Dilinha (Dijiring), 1200 m, 1 ex. (hind portion missing), 1 Male (genitalia mounted between two coverslips and pinned with the specimen), ex. under bark, 22-28.iv.1960 (L. W. Quate or S. Quate coll.); THAILAND : (nw), Chiangmai, Fang, 500 m, 7 nymphs (at various stages of development), ex dead tree, 15-19.iv.1958; Chiangmai Prov., Chiangdao, 450 m, 5 nymphs, ex rotten ficus fruit, dead tree or banana plant, 5-11.iv.1958 (T. C. Maa coll.); Trang Prov., Khaoppha, Khaochung, 200-400 m, 1 Female (without head), 30-31.xii.1963 (G. A. Samuelson coll.); (S), Bane, Chawang, nr Nabon, 7 m, 1 Male (genitalia mounted between two coverslips and pinned with the specimen), 1 Female, 6.ix.1958 (J. L. Gressitt coll.); LAOS : Sedon Prov; Paksong, 1 Female; 17.v.1965 (P. D. Ashlok coll.).

Distribution Widely distributed in the Oriental Region.

Subfamily PLACOLABIDINAE

21. *Placolabis brindleyi* Srivastava

Material examined : Laos : Vietiane Prov., Ban Van Eue, Holotype Male, 29.iii.1966 (Native coll.).

Distribution : Laos.

22. *Epilandex acuminata* sp.n.

(figs 73-77)

Male : General colour dark blackish brown; head, pronotum, antennae especially a few distal segments, abdomen laterally, ultimate tergite and forceps apically shaded with black; mouth parts and legs yellowish brown.

Head slightly longer than broad, frons moderately convex, smooth, impunctate, sutures obsolete, median suture occasionally finely marked. Eyes about as long as the post-ocular area and longer than the basal antennal segment. Antennae (partly broken) 15-segmented, basal segment stout, gently narrowed at base, about as long as the distance between antennal bases; 2nd short, about as long as broad; 3rd long and slender, slightly longer than 4th and almost equal to 5th; 4th onwards segments gradually increasing in length; 4th to 6th subclavate, remaining stout, narrowed at base and enlarged apically, a few apical ones thinner. Pronotum transverse, anteriorly and laterally straight, gently diverging posteriorly, hind angles and margin broadly rounded, median sulcus faintly marked; prozona gently raised and metazona depressed. Prosternum longer than broad, slightly narrowed posteriorly; mesosternum about as long as broad, hind margin convex and metasternum transverse, projecting as a narrow lobe between hind coxae with hind margin truncate. Elytra and wings well developed, smooth, coriaceous. Legs typical, hind tarsi with 1st segment longer than the combined length of 2nd and 3rd segments. Abdomen spindle shaped, convex, obscurely punctulate, finely pubescent, sides with long pubescence, sides of segment 6th to 8th acute angled with a sharp carina, from above looking incurved. Penultimate sternite transverse, smooth, laterally converging, hind margin subtruncate or feebly emarginate in middle; manubrium about as long as the sternite and gently dilated apically. Ultimate tergite transverse, obscurely punctulate, sloping backwards, sides with a sharp carina, median sulcus faintly marked, the area in middle posteriorly depressed, with fine striations, hind margin trisinate, laterally oblique, above the bases of forceps projecting into minute triangular lobe. Pygidium vertical, narrowed in middle, apically emarginate in middle. Forceps with branches subremote at base, trigonal above in basal one third, afterwards depressed, tapering, left branch almost straight, right branch incurved from middle and crossing over the left near apices, tip pointed and hooked, internally branches emarginate at base, thence finely serrated. Genitalia with parameres about as long as proparameres, straight, acuminate (generally during mounting tend to be incurved); virga at base incurved, long and thin, distal lobes with chitinous rods or accessory plates.

Measurements : Holotype Male, Length: body – 7.0 mm; forceps – 1.2 mm; Paratypes 7 Males : Length : body - 6.0-7.4 mm; forceps - 1.1-1.3 mm.

Female : Agrees with male in most characters except that the sides of abdominal segments convex, ecarinate; penultimate sternite obtusely rounded posteriorly; ultimate tergite comparatively narrower posteriorly and forceps simple and straight, internally along the ventral border finely serrated.

Measurements : Length : body 6.5-7.6 mm; forceps - 1.1-1.4 mm.

Material examined : Holotype Male (genitalia mounted between two coverslips and attached with the specimen) : HONG KONG N. T. : Taipokau, 27.viii.1965, Light Trap; Paratypes 1 Male (genitalia attached), 1 Female, same data, 14.viii.1965; Paratypes 1 Male, 2 Females, same data, 2-6.vii.1964, Paratypes 2 Females, same data, Kowaloon, 3.vi.1965 (*Lee Kit Ming & Hui Wai Ming* coll.); Paratypes 4 Males (1 Male with genitalia attached), 3 Females, Taipokau, same data, 10.vi.1964; Paratype 1 Female, same data, 30.vi.1964; Paratype 1 Male, same data, 3-4.vii.1964 (*W. J. Voss & Wai Ming Hui* coll.).

Remarks : The described species can be separated from other known species of the genus by the following key:

- 1(8). Penultimate sternite with a short median ridge extending beyond the posterior margin or with a feeble rudiment of it at extreme apex.
- 2(5). Penultimate sternite with a rudiment of a ridge medially at extreme apex.
- 3(4). Build stout; wings well developed; forceps with branches short, stout, inner margin entire and smooth..... *E. peterseni* Ramamurthi
- 4(3). Build slender; wings scarcely projecting beyond elytra; forceps with branches elongated, concave at base with a tooth at about middle, finely serrated.....
..... *E. handschini* Hincks
- 5(2). Penultimate sternite with a sharp ridge in apical half and extending beyond posterior margin as a process.
- 6(7). Parameres gradually attenuating from base to apex; distal lobes with a rod shaped accessory plate; base of virga concave *E. bazyluki* Steinmann
- 7(6). Parameres strongly narrowed at apex only; distal lobes with a chitinous, dentate, broader accessory plate; base of virga resembling human foot
..... *E. burri* (Borelli)
..... (= *E. undulata* Ramamurthi)
- 8(1). Penultimate sternite without any median ridge or rudiment of it.
- 9(10). Sides of abdominal segments ecarinae; penultimate sternite with a deep emargination in middle posteriorly *E. gressitti* Srivastava

- 10(9). Sides of certain abdominal segments carinate; penultimate sternite entire posteriorly
- 11(14). Sides of abdominal segments 6th to 9th with a sharp median carina; penultimate sternite posteriorly in middle subtruncate or faintly emarginate
- 12(13). Penultimate sternite narrowed posteriorly, produced into a sort of lobe, with hind margin truncate; parameres six times longer than broad with tip acute
..... *E. wagneri* Srivastava
- 13(12). Penultimate sternite narrowed posteriorly, not produced into a lobe, hind margin in middle subtruncate or faintly emarginate; parameres over ten times longer than broad with tip acuminate *E. acuminata* sp. n.
- 14(11). Sides of abdominal segment with a median longitudinal carina on 8th and 9th or 7th and 8th; penultimate sternite in middle posteriorly obtuse or pointed
- 15(16). Sides of abdominal segments 7th and 8th with a median longitudinal carina; penultimate sternite obtuse in middle posteriorly *E. solomonensis* Brindle
- 16(15). Sides of abdominal segments 8th and 9th with a median longitudinal carina; penultimate sternite with a minute point in middle posteriorly
..... *E. serrata* Srivastava

23. *Euborellia annulipes* (Lucas).

Material examined : S. CHINA: Fukien, ChungAn, Bohea Hills, 1 Male, 1 Female, 11.i.1940; W. CHINA, Sikang, Hweili, Mushali, 1 Male, - VIII. 1940 (*T. C. Maa* coll.).

Distribution : Worldwide.

24. *Euborellia annulata* (Fabricius)

Material examined : S.CHINA : Fukien, Shaoure, Shupei, 1 Male, 15.xi.1943; Luki, Pushih, 1 Male, 19.xi.1938, same data, 2 Females, 15.xi.1938, same data, 1 Male, 1 nymph, 1.xii.1938, same data, 1 Male, 16.iii.1939, same data, 1 Male, 1 Female, 6.iv.1939, ChungAn, Bohea Hills, 15 Males, 14 Females, 6 nymphs, 16.ii.1940, same data, 1 Male (genitalia attached), 23.ii.1940, same data, 6 Males, 3 Females, 1 nymph, 11.i.1940 (*T. C. Maa* coll.).

Distribution : Widely distributed in the Oriental Region. Also recorded from Ethiopian Region and Malagasy Sub-Region.

25. *Euborellia femoralis* (Dohrn)

Material examined: LAOS: 800 m, Van-van-eue, SE of Phou – Kowkuei, 1 Male (genitalia attached), 11.iv.1963; Vientiane Prov., Ban-Van-Eue, 1 Female, 13.iv.1965 (*J. L. Gressitt* coll.).

Distribution : Widely distributed in the Oriental Region.

Remarks: Antennae are dark brownish black but basal two and two or three preapical segments are yellowish brown. Sides of abdominal segments 6th to 9th are acute angled posteriorly and rugosely punctulate but median carina is present on 7th to 9th only.

26. *Euborellia plebeja* (Dohrn)

Material examined : LAOS: Vientiane Prov., Phou Kou Khouei, Ban Van Eue, 1 Male (genitalia attached), 15.iv.1965 (*J.L.Gressitt* coll.); Vientiane, 1 Female, 31.v-3.vi.1960, light trap, (*S. Quate* and *L. Quate* coll.); VIETNAM : Dilinh (Djiring), 1200 m, 1 Female, at light (*S. Quate* coll.); Mt. Lang, Bian, 1500-2000 m, 1 Female, 19.-v.8.vi.1961 (*R. N. Spender* coll.); THAILAND : Banna, Chawang nr Nabon, 70 m, 1 Male (genitalia attached), 5.ix.1958, light trap (*J. L. Gressitt* coll.).

Distribution: Widely distributed in the Oriental Region.

Remark: The basal two and preapical two or three segments of antennae are yellowish brown. The sides of abdominal segments 6th to 9th are acute angled posteriorly but smooth and ecarinate.

27. *Euborellia obtusa* sp.n.

(figs 78-82)

Male: General colour brownish black, mouth parts, basal two segments of antennae and sides of pronotum yellow; legs yellowish brown, femora banded in middle with a broad black ring; abdominal tergites in middle above and forceps reddish brown.

Head longer than broad, region behind eyes gently contracted, frons smooth and convex, hind margin feebly emarginate in middle, sutures obscurely marked. Eyes slightly shorter than post-ocular area. Antennae 18-segmented, basal segment expanded apically, stout, about as long as the distance between antennal bases; 2nd about as long as broad; 3rd long and slender, longer than 4th and 5th; 4th and 5th subclavate, subequal, remaining gradually increasing in length distally, each stout, expanded apically excepting a few apical ones thin. Pronotum about as long as broad, sides depressed, straight, gently diverging posteriorly, hind angle broadly and margin briefly rounded, median sulcus distinct, prozona moderately raised and metazona weakly depressed. Legs typical of the genus, hind tarsi with 1st segment stout and almost equal to 3rd segment. Mesonotum and metanotum transverse, former truncate posteriorly and the latter broadly emarginate posteriorly. Prosternum longer than broad, feebly constricted between fore-coxae; mesosternum about as long as broad, hind margin feebly convex; metasternum broad, between hind-coxae narrowed with hind margin truncate. Apterous. Abdomen long, slender, gently narrowed at base, afterwards almost parallel sided, smooth above, sides

of segments 6th to 9th obscurely punctulate, obtuse angled posteriorly and devoid of median longitudinal carina. Penultimate sternite narrowed posteriorly, hind margin in middle subtruncate, scarcely emarginate in middle. Ultimate tergite smooth above, weakly transverse, depressed, lateral carina obsolete, hind margin truncate in middle, feebly emarginate and oblique laterally, areas corresponding with bases of forceps provided with oblique striation, median sulcus feebly marked all through the length. Forceps with branches subremote, enlarged and trigonal in basal one third, afterwards tapering, depressed, left branches almost straight, gently incurved a little before apex, right branch more strongly incurved at apical one third, apices gently hooked, pointed crossing each other. Genitalia with parameres about as long as broad, external apical angle feebly distinct, internally in apical half with a distinct concavity, a fine virga is discernible in proparameres or penis lobes.

Measurements : Length : body - 8.9 mm; forceps 1.4 mm.

Female : Agrees with male in most characters except that slightly darker in colour; sides of abdominal segments convex; penultimate sternite triangular and obtuse in middle posteriorly and forceps simple and straight.

Measurements : Length : body - 10.5 mm; forceps - 1.7 mm.

Material examined : Holotype Male: LAOS : Vientiane Prov., Ban Van Eue, 30.xi.1965; Paratype 1 Female, same data (*Native coll. Rondon*).

Remarks : Amongst the Oriental species of the genus *Euborellia* Burr, the described species comes close to *E. dattai* Srivastava, from India (Rajasthan) but differs by the shape of penultimate sternite in being narrowed posteriorly with hind margin subtruncate or feebly emarginate in middle (*vs* broadly rounded posteriorly in *E. dattai*) and parameres about as long as broad, external apical angle feebly and inner apical concavity distinctly marked (*vs* parameres slightly longer than broad, external apical angle rounded and inner margin straight with slight convexity in middle).

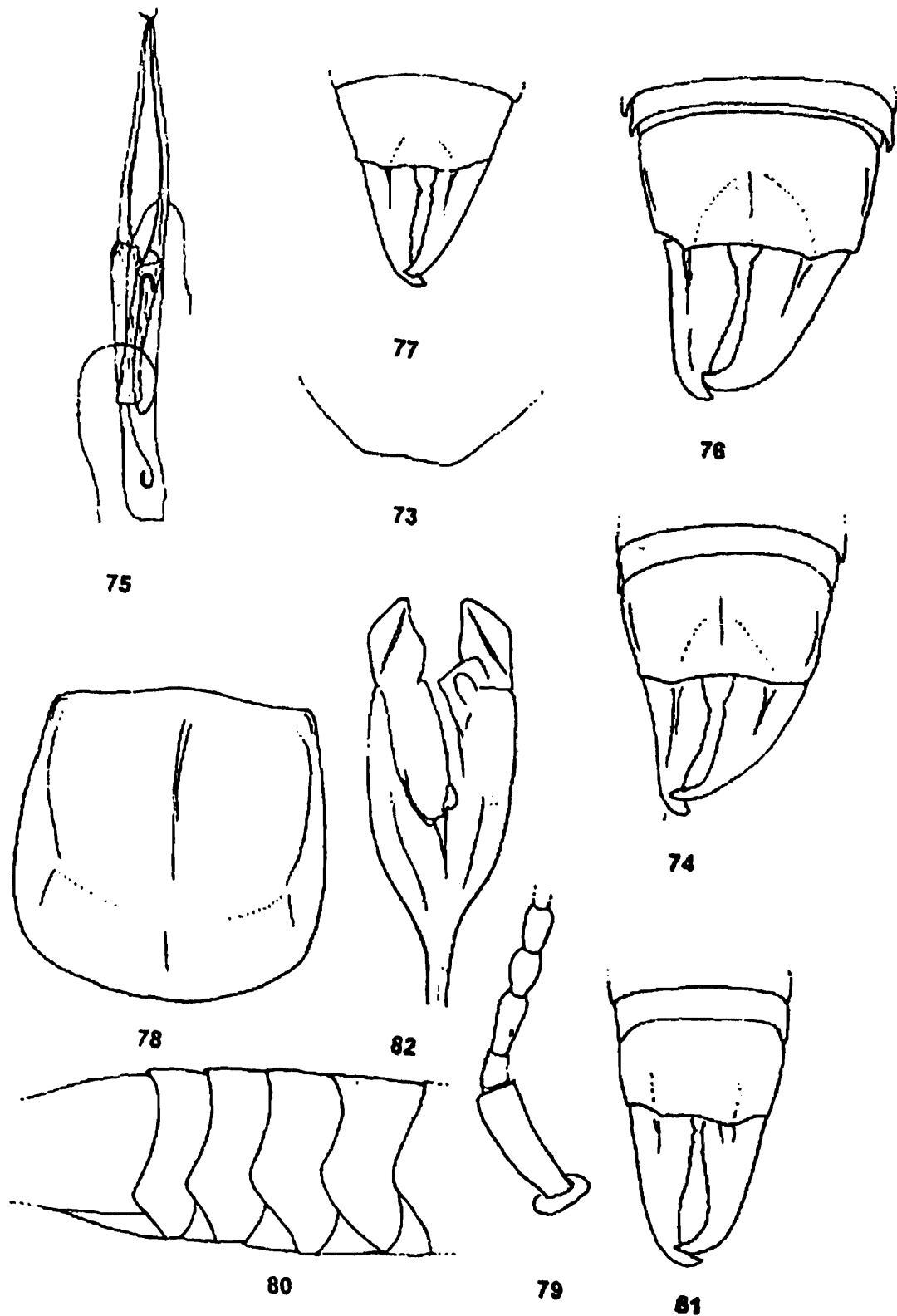
Subfamily ANISOLABIDINAE

28. *Mongolabis depressus* sp.n.

(figs 83–86)

Male : General colour dark brownish black; mouth parts and legs yellowish, latter with femora dark blackish in basal two thirds; antennae with one or two preapical segments yellow.

Head smooth, moderately convex, sutures fine, hind margin lightly emarginate in middle. Eyes shorter than the post-ocular area. Antennae 16-segmented (or more, since partly broken), 1st segment stout, gently narrowed, shorter than the distance between scapi. Pronotum about as long as broad, smooth, anterior margin straight, sides gently



Figs. 73-82 : *Epilandex acuminata* sp.n., Holotype Male; 73. Posterior portion of penultimate sternite; 74. Hind portion of body; 75. Genitalia; Paratype Male; 76. Hind portion of body; Paratype Female; 77. Ultimate tergite and forceps; *Euborellia obtusa* sp.n., Holotype Male; 78. Pronotum; 79. A few basal antennal segments; 80. Sides of abdominal segments; 81. Hind portion of body; 82. Genitalia.

reflexed, slightly divergent posteriorly, hind margin truncate, postero-lateral angles rounded, median sulcus faintly marked. Mesonotum and metanotum smooth, transverse, latter with hind margin emarginate. Prosternum longer than broad, mesosternum rounded and metasternum truncate posteriorly. Legs with fore-femora swollen, middle and hind legs compressed, hind tarsi with 1st segment only slightly longer than 3rd. Abdomen moderately convex, finely punctulate, gradually enlarging posteriorly, lateral folds on 3rd and 4th tergites weakly marked, sides of segments 6th to 9th acute angled posteriorly but longitudinal carina present only on segments 7th and 9th, a faint tubercle present posteriorly on sides of segments 5th and 6th only. Penultimate sternite narrowed posteriorly, punctulate, hind margin faintly emarginate in middle, a broad faint depression present. Ultimate tergite transverse, with longitudinal rows of fine punctulations, median sulcus short and distinct, hind margin in middle straight, laterally oblique and feebly concave, an oblique faint carina present on sides. Branches of forceps subcontiguous at base, broad at base, tapering apically, gently incurved in apical half, right branch more so and crossing over left, a little before apex, trigonal in basal one third, afterwards depressed, apices pointed and gently hooked, internal margin finely crenulate. Genitalia with parameres slightly longer than broad, inner margin slightly emarginate, apical margin longer than external margin with angle rounded and slightly prominent, tip obtuse, a little projecting, distal lobes without virga or teeth.

Measurements : Length : body - 11.8-12.3 mm; forceps - 2.1-2.2 mm.

Female : Argees with male in most characters except that penultimate sternite obtuse in middle posteriorly; ultimate tergite narrowed posteriorly and forceps contiguous, simple and straight.

Measurement : Length : body - 10.0 mm; forceps - 2.2 mm.

Material examined : CHINA: Shaoun, Tachulan, Holotype Male (genitalia mounted between two coverslips and pinned with the specimen), 5.vii.1942; Paratype 1 Male, same data, .. viii. 1945 and Paratype 1 Female, same data, 27.x.1942 (*T. C. Maa* coll.).

Remarks : This species comes close to *Mongolabis cavaleri* (Borelli) but differs in having antennae unicolourous except one or two pre-apical ones yellow; femora dark blackish brown but yellow in apical one third; sides of segments 7th and 8th with a fine longitudinal carina but almost obsolete on 9th tergite; penultimate sternite with a somewhat rectangular depression in middle, hind margin emarginate and male parameres with apex somewhat more produced and external apical angle broadly rounded. In having antennae unicolours especially basal segments, sides of abdominal segments with a longitudinal keel and apical sternite with a quadrilateral depression it resembles *Mongolabis panfilovi* (Bey-Bienko) but differs by smaller size, presence of almost obsolete longitudinal carina on the side of 9th abdominal segment and parameres with apex somewhat more produced and rounded and apical external angle broadly rounded.

29. *Mongolabis acuta* sp.n.

(figs 87–89)

Male : General colour blackish brown, darker on certain body parts; mouth parts and legs yellowish, latter with femora blackish brown in basal two thirds; antennae lighter in colour with one or two preapical segments yellow.

Head smooth, frons moderately convex, at the junction of transverse and median suture faint depression present, sutures faint, hind margin feebly emarginate in middle. Eyes about half as long as the post-ocular area. Antennae (partly broken) 15-segmented or more, 1st stout gently expanded apically, slightly shorter than the distance between antennal bases. Pronotum about as long as broad, smooth, all margins straight, lateral margin gently reflexed, postero-lateral angles rounded, median sulcus distinct, prozona weakly raised, a little differentiated from weakly depressed metazona. Mesonotum and metanotum transverse, sparsely punctulate, former a slightly more than half the length of pronotum with hind margin truncate and the latter with hind margin broadly emarginate. Prosternum longer than broad, constricted between front-coxae, afterwards expanded but narrower than anterior half, anterior and posterior margins truncate; mesosternum about as long as broad, sides moderately convex, hind margin briefly rounded, a broad triangular depression in anterior half present; metasternum truncate posteriorly. Legs with fore-femora swollen, middle and hind legs compressed, hind 1st tarsal segment slightly longer than 3rd, claw without an arolium. Abdomen convex, tergites sparsely punctulate, punctulation separated by the area double the size of their circumference, gradually enlarging up to 9th tergite, afterwards gently contracted, sides of segments 7th to 9th obtuse angled, rugosely punctate but segment 8th with a faint longitudinal rugosity. Penultimate sternite narrowed posteriorly, lateral margin oblique, lateral margin at base on left with an emargination, hind margin in middle truncate. Ultimate tergite transverse, punctulation obscure, disc moderately convex in basal one third, afterwards sloping and depressed, laterally above, in middle, with a raised tubercle and an oblique weak fold, hind margin in middle almost straight, sides oblique and concave. Pygidium not visible from above, vertical, triangular, narrowed posteriorly. Forceps remote and heavy at base, tapering apically, incurved in apical half, tip gently hooked and pointed, inner margin almost smooth, trigonal above in basal one fourth, afterwards compressed. Genitalia with parameres slightly longer than broad, tip acute, apical margin oblique, slightly longer than external margin, external apical angle obtuse and feebly projecting, distal lobes with virga or teeth.

Measurements : Length : body – 17.6 mm; forceps – 2.3 mm.

Female : Unknown.

Material examined : Holotype Male (genitalia mounted between two coverslips and pinned with the specimen; CHINA: Fukien, Shaowu, TachuLan, 20.iv.1943 (T. C. Maa coll.).

Remarks : This species comes close to *Mongolabis panfilovi* (Bey-Bienko) in having somewhat identical parameres but differs by the shape of sides of 7th to 9th abdominal tergites in being obtuse angled, rugosely punctate and with a median rugosity only on 8th tergite; penultimate sternite narrowed and truncate in middle posteriorly; and genitalia with distal lobes lacking fine teeth or virga.

It is somewhat similar to *Mongolabis fallax* (Bey-Bienko), in having unicolorous antennae, especially basal segments; sides of segments 7th to 9th rugose, obtuse angled but 8th with a longitudinal rugosity only but differs by shape of parameres and colouration of legs especially femora.

30. *Mongolabis affinis* Ramamurthi

(fig. 90)

Material examined : THAILAND: Chiangmai, Doi Suthep, 900 m, 1 Male (genitalia mounted between celluloid slips and pinned with the specimen), 1 Female, 2 nymphs, 14.xi.1957 (T. C. Maa coll.).

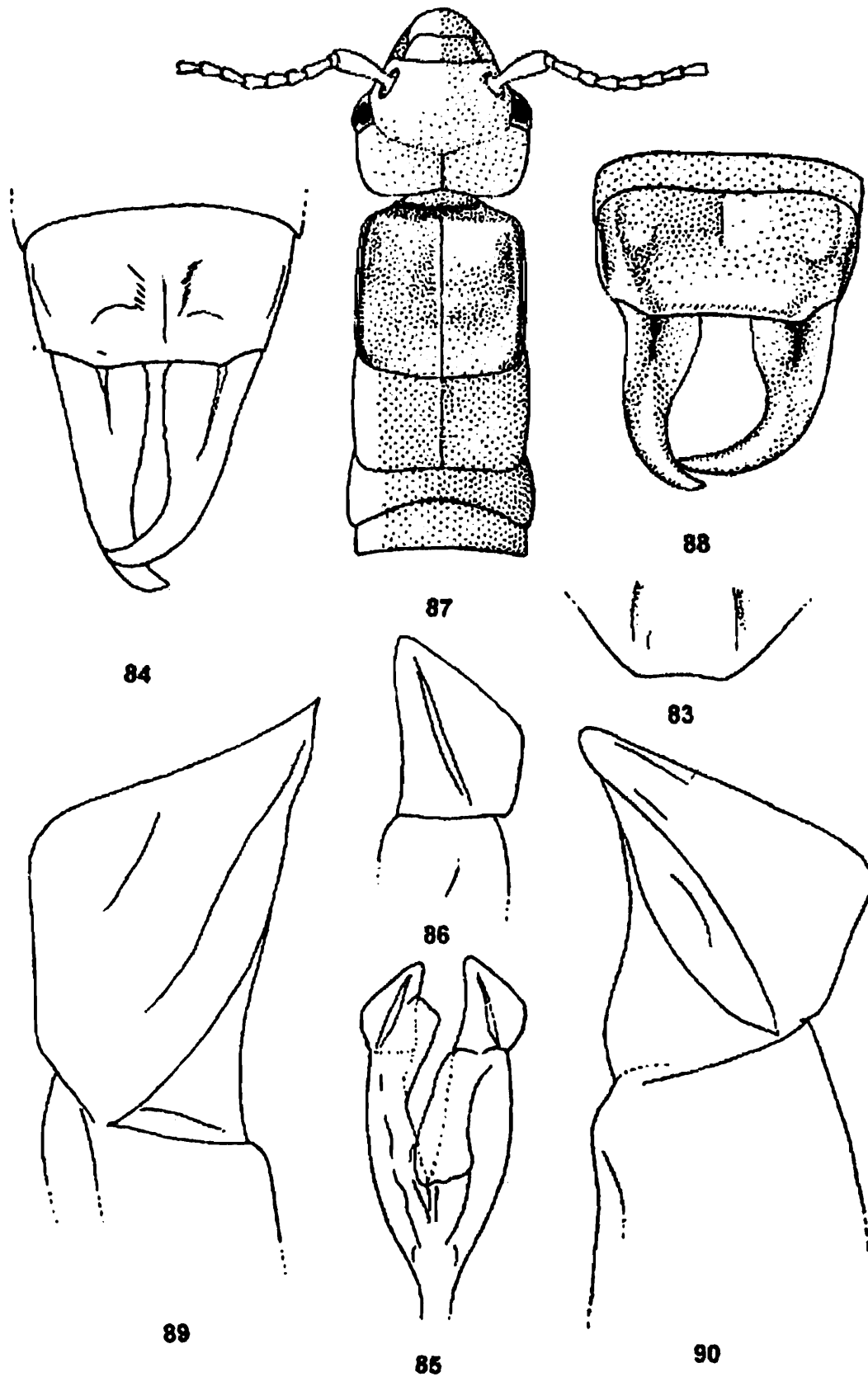
Remarks : It is closely related to *Mongolabis fallax* (Bey-Bienko) by the general shape of parameres but differs in having bicolorous femora; penultimate sternite emarginate posteriorly and provided with faint longitudinal ridges in posterior half in middle and preputial sacs of male genitalia armed with rows of minute teeth.

31. *Mongolabis emarginatus* sp.n.

(figs 91-94)

Male : General colour dark blackish brown; antennae unicolorous with one or two preapical segments lighter; legs uniform yellowish brown.

Head slightly longer than broad, smooth, hind margin feebly emarginate in middle, sutures fine, frons convex. Eyes slightly shorter than post ocular length in the ratio of 7 : 10. Antennae 15-segmented or more (partly broken); 1st segment stout, gently expanded apically, slightly shorter than the distance between antennal bases; 2nd short, about as long as broad; 3rd long and slender; 4th shorter than 3rd but gently expanded



Figs. 83-90 : *Mongolabis depressus* sp.n., Holotype Male, 83. Posterior half of penultimate sternite; 84. Ultimate tergite and forceps; 85. Genitalia; 86. Paramere, enlarged; *Mongolabis acuta* sp.n., Holotype Male, 87. Anterior portion of body; 88. Ultimate tergite and forceps; 89. Paramere, enlarged; *Mongolabis affinis* Ramamurthi, Male; 90. Paramere, enlarged.

apically; 5th slightly longer than 4th but shorter than 3rd; 6th about as long as 3rd and remaining gradually increasing in length distally, thinning and each narrowed at base. Pronotum quadrate, about as long as broad, anterior and posterior margins straight, sides feebly reflexed and emarginate in middle, median sulcus faint, prozona weakly raised and little differentiated from weakly depressed metazona. Meso- and metanotum transverse, former smooth, hind margin truncate and latter obscurely punctate laterally, hind margin emarginate. Prosternum longer than broad; mesosternum about as long as broad, with posterior margin rounded and metasternum with hind margin truncate. Legs typical, hind tarsi with 1st segment slightly more than one and half times longer than 3rd, clad with thick hairs on underside. Abdomen gradually expanding from base up to 9th tergite, tergites finely punctulate, in posterior half smooth, lateral folds on 3rd and 4th tergites weakly marked, sides of segments 6th to 9th obtuse posteriorly, except 6th remaining segments rugosely striate, ecarinate. Penultimate sternite narrowed posteriorly, sides straight and oblique, hind margin broadly emarginate. Ultimate tergite transverse, almost smooth, slightly narrowed posteriorly, median sulcus distinct, laterally with a faint oblique carina and the area below it rugosely striate, disc moderately convex but sloping backwards, hind margin in middle feebly emarginate, laterally oblique and emarginate. Forceps with branches subcontiguous at base, tapering apically, almost straight but gently incurved in apical one third with right branch crossing over the left, apices gently hooked and pointed, trigonal in basal one third, inner margin faintly serrated. Genitalia with parameres hook shaped, inner margin emarginate in middle; preputial sacks without virga or fine teeth.

Measurements : Length : body – 25.5 mm; forceps – 3.7 mm.

Female : Unknown.

Material examined : Holotype Male (genitalia mounted between two celluloid slips and pinned with the specimen), VIETNAM, Dalat, 1500 m, 29.iv. - 4.v.1960 (S. Quate L. Quate and coll.).

Remarks : On the basis of shape of parameres it can be easily distinguished from various species the genus described from the Oriental Region or more precisely from those species that are grouped around *Mongolabis cavalerei* (Borelli).

32. *Mongolabis fukiensis* sp.n.

(figs. 95–98)

Male: General colour dark brownish black, antennae somewhat lighter with one or two preapical segments yellow; legs light brown or yellowish, femora in basal two thirds and tibia near base black.

Head about as long as broad, smooth, frons moderately convex, sutures fine, hind margin almost straight. Eyes about two third as long as the post-ocular area. Antennae

(partly broken), 17-segmented or more; 1st stout, slightly shorter than the distance between antennal bases, gently expanded apically; 2nd short, about as long as broad; 3rd long and slender; 4th and 5th subequal and somewhat globular; 6th almost equal to 3rd, gently expanded apically, afterwards segments gradually increasing in length distally and thinning. Pronotum about as long as broad, sides straight, parallel, gently reflexed, hind margin subtruncate, median sulcus faint, prozona raised and metazona weakly raised. Meso- and metanotum transverse, former truncate and latter emarginate posteriorly. Prosternum longer than broad, slightly constricted between fore-coxae, thence again attaining same width; mesosternum slightly longer than broad, sides almost straight, hind angles and margin rounded; and metasternum broader than long, narrowed between hind-coxae, hind margin truncate. Legs normal, hind tarsi with 1st segment slightly longer than 3rd. Abdomen narrowed at base, gradually enlarging posteriorly up to 9th tergite, moderately convex, almost smooth or obscurely punctulate, lateral folds on 3rd and 4th tergites weakly marked, sides of abdominal segments 6th to 9th acute angled posteriorly, provided with a faint tubercles at extreme apex from 5th to 8th segments. Penultimate sternite narrowed posteriorly, sides oblique, straight, hind margin in middle faintly emarginate. Ultimate tergite transverse, smooth, contracted posteriorly, median sulcus distinct, hind margin straight in middle, laterally oblique and concave. Forceps with branches contiguous or subcontiguous, broadened at base, tapering apically, almost straight, gently incurved in apical one third with left branch crossing over the right, apices hooked and pointed, trigonal above in basal one third, afterwards, depressed, internal margin finely serrated. Genitalia with parameres about as long as broad, anterior margin oblique and forming rounded angle with external margin, apex produced in the form of a rounded lobe, inner margin straight; preputial sacks short, provided with minute chitinous teeth.

Measurements : Length : body – 12.5-12.6 mm; forceps – 2.9-3.2 mm.

Female : Agrees in most characters with males except ultimate tergite comparatively more narrowed posteriorly; penultimate sternite triangular, posteriorly in middle obtusely rounded and forceps simple and straight.

Measurements : Length : body – 16.5 mm; forceps – 3.2 mm (out of two Paratype females one is in poor condition and the other one for which measurements are given is somewhat crushed).

Material examined : Holotype Male (genitalia mounted between two celluloid slips and pinned with the specimen), S. CHINA : Fukien, Chung An, Bohea Hills, 20.iv.1941; Paratype 1 Male (genitalia mounted between two coverslips and pinned with the specimen), Paratypes 2 Females, same data; 1 nymph, same data, 3.v.1940; 2 nymphs, same data, 11.i.1940; 6 nymphs, same data, 16.ii.1940; 2 nymphs, same data, Sanchiang, 23.ii.1943 (all *T.C.Maa* coll.).

Remarks : This species comes close to *Euborellia sechuana* (Bey-Bienko) from

China in having somewhat similar general body colouration and parameres but differs in being slightly larger in size; pronotum longer than broad; sides of abdominal segment 7th to 9th acute angle posteriorly, smooth, ecarinate and provided with a faint tubercle and parameres with external angle more or less obtusely rounded.

From *Anisolabis ? vitalisi* Burr and *Euborellia cavaleri* (Borelli) it can be easily separated by the penultimate sternite in being faintly emarginate in middle posteriorly and distinctive parameres.

33. *Mongolabis formosae* (Borelli)

(fig. 99)

Material examined : S. CHINA : Shaowu, Tachulan, 1000 m, 1 Male (genitalia mounted between two coverslips and pinned with the specimen), 24.v.1942; 1 nymph, same data, 9-11.xi.1942; 1 nymph, same data, ...1.1943; 6 Females, same data, 13-18.ii.1943; 2 Females, same data, 27.ii.1943; 2 nymphs, same data, 8.v.1943; 1 Female, same data, 16-28.v.1943; 1 Female, same data, 26-29.v.1943; Likiatun, 2 nymphs, 12.x.1941; Shui Pejkai, 1 nymph, 9.i.1942; Chungan, Sanchiang, 1 nymph, 28.ii.1943; SC CHINA : HUN An, Luki, Pushih, 1 nymph, 7.xii.1938 T. C. Maa coll.

Remarks : The above recorded male agrees well with the original description of the species except that 1st segment of hind tarsi is distinctly longer than 3rd and the external angles of parameres projecting but somewhat rounded. Perhaps these minor differences represent only individual variations.

LABIDURIDAE

ALLOSTETHINAE

34. *Allostethum indicum* (Burmeister)

Material examined : THAILAND : Banna, Nakhon, 108 m, 1 Male (genitalia mounted between two coverslips and attached with the specimen), 2 Females, 7 nymphs, 5-10.v.1958 (T. C. Maa Coll.).

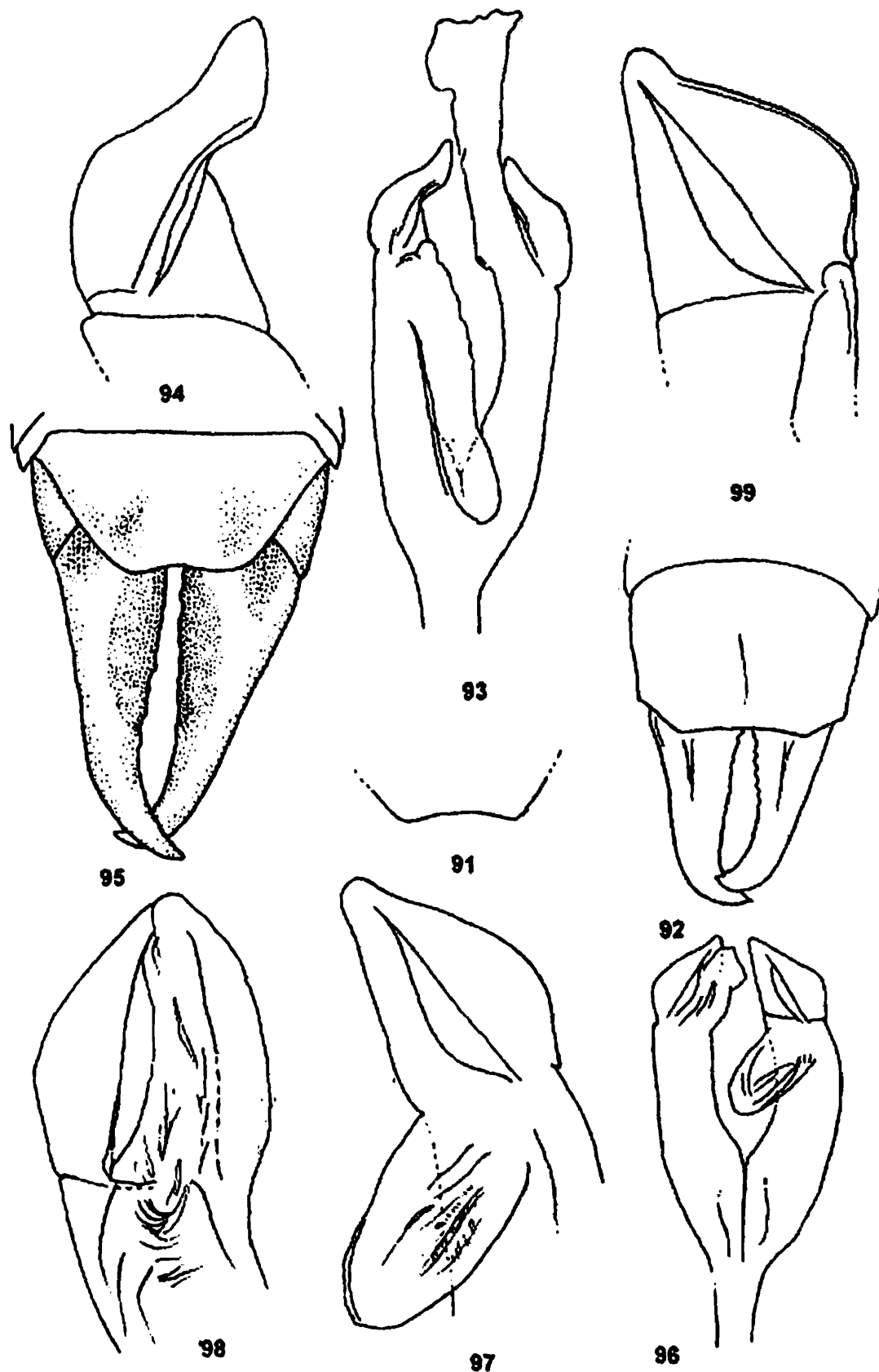
Distribution : Sunda and Philippine Isls.

35. *Gonolabidura spenceri* sp.n.

(figs. 100-105)

Male : General colour dark blackish brown; mouth parts and legs yellow but latter with femora in basal two thirds and tibia in basal one third black.

Head slightly longer than broad, smooth, convex, sutures obsolete, hind margin



Figs. 91-99 : *Mongolabis emarginatus* sp.n., Holotype Male, 91. Posterior half of penultimate sternite; 92. Ultimate tergite and forceps; 93. Genitalia; 94. Paramere, enlarged; *Mongolabis fukiensis* sp.n., Holotype Male; 95. Penultimate sternite and forceps, in ventral view; 96. Genitalia; 97. Paramere, enlarged; Paratype Male; 98. Paramere, enlarged; *Mongolabis formosae* (Borelli), Male, 99. Paramere, enlarged.

scarcely emarginate in middle. Eyes only slightly shorter than post-ocular area. Antennae (partly broken) 18-segmented or more; 1st segment stout, narrowed at base and expanded apically, slightly shorter than the distance between antennal bases; 2nd small about as long as broad; 3rd long and slender; 4th a trifle longer than broad; 5th about as long as the 3rd, gently narrowed at base; 6th onwards segments gradually increasing in length distally and each narrowed at base and expanded apically, finely pubescent. Pronotum quadrate, transverse, smooth, all margins straight, sides gently reflexed, median sulcus faint, prozona weakly raised and not well demarkated from metazona. Meso and metanotum smooth, strongly transverse, former subtruncate and latter broadly emarginate posteriorly. Prosternum triangular, narrowed posteriorly; mesosternum acuminate and metasternum truncate posteriorly. Legs typical, hind tarsi with 1st segment slightly longer than 3rd; claw without an arolium. Abdomen moderately convex, spindle shaped, shallowly and densely punctate, punctation less prominent in anterior tergites, sides of segments convex, striate on segments 5th to 9th. Penultimate sternite triangular, sides oblique, faintly emarginate, hind margin in middle produced, almost straight, in posterior half clad with very long pubescence except the median longitudinal stripe with sparse pubescence. Ultimate tergite faintly punctate, transverse, gently narrowed posteriorly, laterally without carina, weakly convex above, sloping backwards, median sulcus short, hind margin in middle straight, laterally oblique and emarginate. Forceps with branches remote and heavy at base, tapering apically, strongly incurved in apical half with apices gently hooked and crossing, depressed, ventral margin flat, in cross section, convex above, inner margin below faintly and irregularly serrated.

Measurements : Length : body – 13.9 mm, forceps – 2.1 mm.

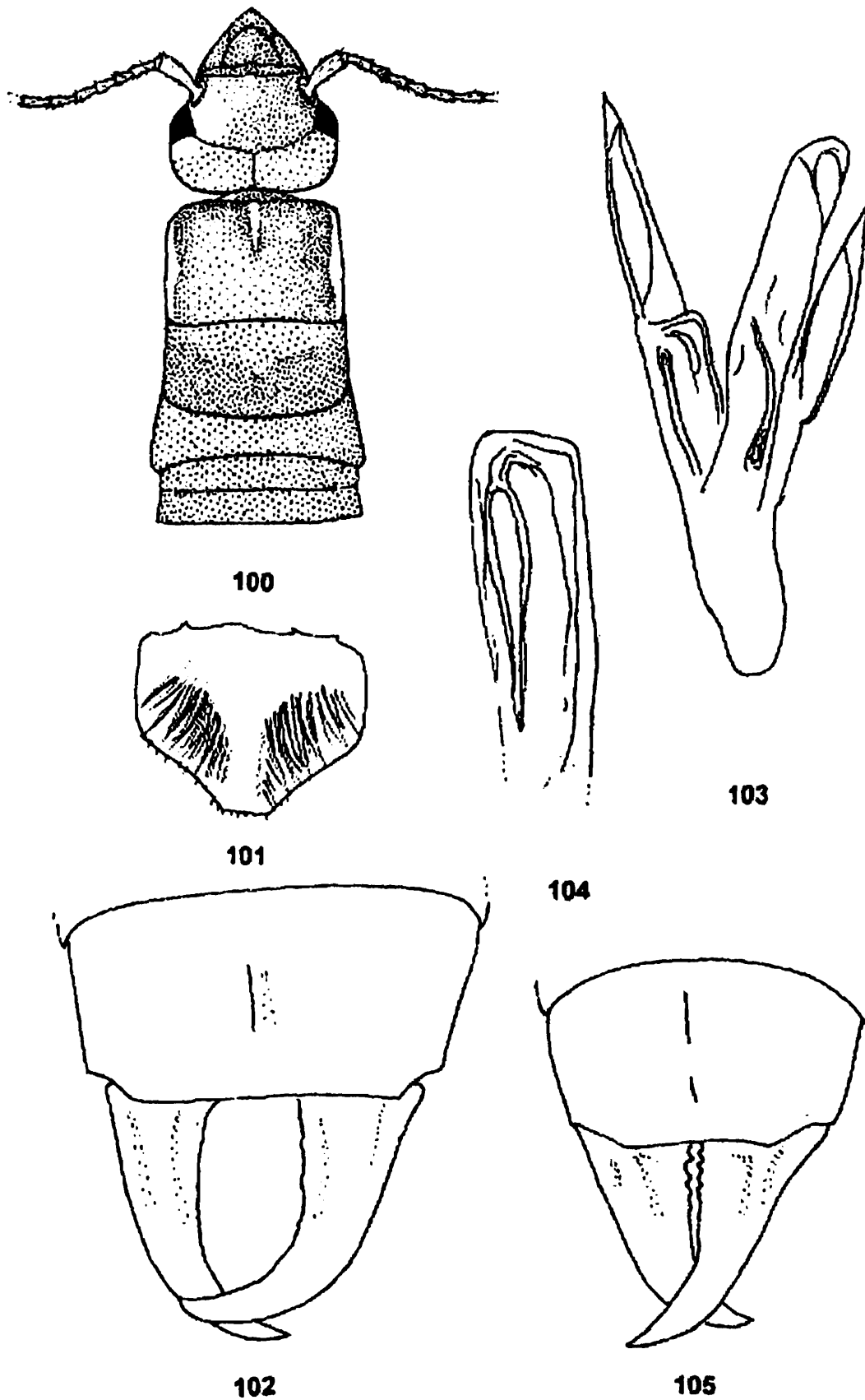
Female : Agrees with male in most characters except that comparatively darker in colour and femora faintly lighter in colour apically; penultimate sternite obtusely rounded posteriorly and forceps contiguous, simple, crossing a little before apex, internal margin in basal one third serrated.

Measurements : Length : body – 17.9 mm; forceps – 2.9 mm.

Nymphs : Agree with female in most characters except that slightly smaller in size and 3rd antennal segment comparatively longer.

Material examined : Holotype Male (genitalia mounted between two coverslips and pinned with the specimen), VIETNAM : Mt Lang, Bian, 1500-2000 m, 19.v-8.vi.1961; Paratypes 1 Female and 5 nymphs, same data (*N. R. Spencer* coll.).

Remarks : In having bicolorous legs this species comes close to *Gonolabidura javana* Boeseman, the Holotype of which is a Female according to Steinmann (1980). The figure-given by Boeseman (1954, figs. 7a, b) seen to confirm above view. The females of described species, on comparison, differ by the shape of ultimate tergite in being truncate along the posterior margin, lacking any sort of protuberances, median sulcus short, distinct and shallowly punctate.



Figs. 100-105 : *Gonolabidura spenceri* sp.n., Holotype Male, 100. Anterior portion of body; 101. Penultimate sternite; 102. Ultimate tergite and forceps; 103. Genitalia; 104: Basal portion of distal lobe, enlarged; Paratype Female; 105. Ultimate tergite and forceps.

It appears similar to *G. piligera* (Bormans) in lacking lateral longitudinal ridge on ultimate tergite and somewhat similar penultimate sternite but differs by the deeply punctate abdominal tergites; penultimate sternite clad with golden yellow thick pubescence and parameres comparatively broader.

From *G. boschmai* Boeseman (1954), which according to Steinmann (l.c.) is based on a nymph, the described species can be separated by bicolourous legs, lacking long pubescence on lateral sides of abdominal tergites and the shape of ultimate tergite and forceps.

NALINAE

36. *Nala lividipes* (Dufour)

Material examined : INDIA : West Bengal, Birbhum Dist., Santiniketan, 3 Females,....x.1937 (*T.C.Maa* coll.); THAILAND : Chiangmai, 300 m, 2 Females, 13.xi.1957, at light, same data, 3 Males, 2 Females, 14.xi.1957 (*J.L.Gressitt* coll.); Chiangmai Prov., Fang, 1 Female, 13.iv.1958 (*T.C.Maa* coll.); same data, Chiangmai, 1 Male, 1 Female, 11.vi.1965, same data, 5 Males, 6 Females, 17.vi.1965, at light (*P. D. Ashlock* coll.); 20 km of Chiang ai, 330 m, 5 Female, 1 ex (hind portion of body missing), 13-15.iv.1966; CAMBODIA : Siemreap; Angkor, 1 Female 6.xii.1957 (*J. Szent-Ivany* coll.); LAOS : Vientiane, 2 Females,....ii.1965, same data, 4 Males, 17 Females, 2 ex (hind portion of abdomen missing), 31.v.-3.vi.1960 (*S.Quate* and *L. Quate* coll.); Moug Sing, NW of Luang Prabang, 650 m, 9 Males, 10 Females, 2 exs. (hind portion of abdomen missing), 6-10.vi.1960, at light (*S. Quate* and *L. Quate* coll.); VIETNAM : 15-35 km NW of Phan Rang, 1 Male, 1 Female, 8-16.xi.1960 (*C. M. Yoshimoto* coll.); M'Dark, E of Ban MeThout, 4-600 m, 1 Male, 8-19.xii.1960, at light (*C.M.Yoshimoto* coll.); Dilinh (Djiring), 920 m, 1 Male, 23-28.iv.1960, light trap. (*S. Quate* and *L. Quate* coll.); Bien Hoa, 1 Female, 25.ii.1969, at light (*C. R. Joyce* coll.); SC CHINA : HunAn, Luki, 2 Females, 4.iii.1939; S.China, Changting, Hotien, 1 Female, 15.iv.1941, Fukien, Yung An, 1 Male, 5.vii.1940; same data, 1 Female, 23.xi.1940 (*T.C.Maa* coll.).

Distribution : World wide, mostly in warmer parts of the globe.

37. *Nala nepalensis* (Burr)

Material examined : VIETNAM: Dalat, 6 km S., 1400-1500 m, 1 Male (one branch of forceps malformed), 9.vi. -7.vii.1961 (*N.R.Spencer* coll.); S. CHINA: Fukien, Shaowu, Tachulan, 1 Male, 21-26.iv.1945 (*T.C.Maa* coll.).

Distribution : All along the Himalayas in India, Nepal, Bhutan and the mountain regions of Pakistan, Malaya, Cambodia and Afghanistan.

It is reported from Vietnam and South China for the first time.

LABIDURINAE

38. *Labidura riparia* (Pallas)

Material examined : INDIA : West Bengal, Darjeeling, 1 nymph, ...x.1937 (T.C.Maa coll.); THAILAND : Chiangmai, 300 m, 2 Males, 1 Females, 14.xi.1957; (N) Pangma Kampon (Pankampawng) nr Fang, 450 m, 1 Female, 16.xi.1957 (J.L.Gressitt coll.); Tak, 1 Female, 10.iv.1966 (J.H. & M. Sedlacek colls.); LAOS : Luang, Praban, 300 m, 1 Female, 4-5.vi.1960 (S.Quate & L. Quate coll.); VIETNAM : Kontum, N. of Pleiku, 550 m, 1 Male, 2 Females, 13.vi.1960, same data; 1 Female, 11-12.vi.1960 (R.E. Leach coll.); 14 km W of Phang Rang, Nhaho, 1 Female, 13.xi.1960, light trap (C.M. Yoshimoto coll.); SC CHINA : HunAn, Luki, Pushih, 1 Male, 21.iv.1939; C CHINA : Hunan, Hengyang, 1 Male (one arm of forceps missing), 30.ix.1939; S. CHINA : Fukien, ChungAn, Bohea, 1 Female, 12.ix.1939; same data, 1 Male, 3 Females, 1 ex (forceps missing), 11.i.1940; same data, 4 Males, 3 Females, 2 nymphs, 16.ii.1940; same data, 1 Male, 1 Female, 20.ii.1940; same data, Yungan city, 1 Male,iv.1940; same data, YungAn, 1 Male, 16.ix.1940; same data, 1 Male, 1 Female, 31.iii.1941; same data, Shaowu, Shupeiikei, 1 Male, 15.vii.1941; same data, 2 Females, 17.iv.1941; same data, 1 Female, 1-10.ii.1943 (T. C. Maa coll.); HONGKONG N.T. : Taipokau, 1 Female, 20.vi.1964, light trap, (W. J. Voss and Wai Ming Hui coll.).

Distribution : Worldwide.

39. *Forcipula quadrspinosa* (Dohrn)

Material examined : S. CHINA: Fukien, Shanghang: Fungshih, 1 Male, 8.viii.1940 (T.C. Maa coll.).

Distribution : Widely distributed in the Oriental Region. Also recorded from Afghanistan, Reunion and Mauritius.

APACHYOIDEA

APACHYIDAE

40. *Apachyus feae* Bormans

Material examined : THAILAND : NW, Chiangmai Prov., Chiangdao, 450 m, 1 Female, 11-15.iv.1958 (T.C.Maa coll.); LAOS : Vientiane Province, Ban Van Eue, 6 nymphs (at various stages of development), 30.i.1965; same data, 4 nymphs (at various stages of development), 30.i.1966; same data, 1 Female, 2.iii.1966; same data, 3 Females, 16.iii.1966; same data, 1 Female, 15.v.1966; same data, 2 nymphs, 15.vi.1966; same data 2 nymphs, 15.vii.1966; same data, 2 nymphs, 30.xi.1966; same data, 3 nymphs, 15.xii.1966; same data, Vientinae, 1 Male, 1 ex (hind portion of body missing), 22.iii.1966,

Xieng, Kyouang Prov., Ban Sam Thang, 6 nymphs (various stages of development), 30.ii.1965 (*native collector*); VIETNAM : Dilinh, (Djiring), 1 Female, 22-28.iv.1960, light trap (*S. Quate & L. Quate coll.*).

Distribution : India; Myanmar, Thailand, Laos and Vietnam.

Remarks : In the present material a large number of nymphs are represented which are at various stages of development. The ultimate tergite and the anal process are light blackish brown than rest of the body. The anal process is more or less triangular and resembles with that of female.

Some variations in the body colour of adults is noted, especially wings which are normally yellow bordered externally with brownish but in some specimens these are uniform dark brownish yellow with varying intensity.

41. *Apachyus chartaceus* Haan

Material examined : VIETNAM : Kontum, N. of Pleiku, 550 m, 1 Female, 30.v.1960 (*R. E. Leach coll.*).

Distribution : Java, Sumatra and Borneo. It is reported from Vietnam for the first time.

42. *Apachyus brindlei* Srivastava

Material examined : LAOS : Van heva, Holotype Male, 6.iii.1966 (*Randon coll.*).

Distributiun : Laos.

FORFICULOIDEA

SPONGIPHORIDAE

RUDRAXINAE

43. *Rudrax brindlei* Srivastava

Material examined: CHINA (SOUTH) : Fukien, Chaugting, Niuling, Holotype Male (genitalia mounted between two coverslips and pinned with the specimen), 9.vi.1940 (*T. C. Maa coll.*).

Distribution: Known from the type locality only.

SPONGIPHORINAE

44. *Marava arichidis* (Yersin)

Material examined : In a box of *Apuretus* from Foochow, China, 1 Male, 27.viii.1927.

Distribution : World wide.

45. *Spongovostox mucronatus* (Stål)

Material examined : THAILAND: NW : Chiangmai, Fang, 500 m, 1 Male, 12-19.iv.1950; same data, 2 Males, 4 Females, 15.iv.1958, in a dead tree (*T. C. Maa* coll.); Trang Prov., Khaophappa, Khaochang, 200-400 m, 1 Female, 30-31.xii.1963 (*G.A. Samuelson* coll.).

Distribution : Widely distributed in the Oriental Region. Also known from Mauritius and New Guinea.

46. *Spongovostox semiflavus* (Bormans)

Material examined : THAILAND : Chiangmai, 300 m, 1 Male, at mercury vapour light, 13.xi.1957; (c) : Pakchong, 100 m NE of Bangkok., 100 m, 3 Males, 1 Female, 2 nymphs, 2.xii.1957; same data, 2 Males, 3 Females, 3.xii.1957, (*J.L.Gressitt* coll.); (NW) : Chiangmai, Fang, 500 m, 2 Females, in a dead tree (*T.C.Maa* coll.); LAOS : Vientine Prov., Ban Van Eue, 1 Female, 30.xi.1965 (*Native* collector – Randon); VIETNAM : 60 km SW Blao (Balao), 500 m, 1 ex (hind portion of abdomen missing), 22.iv.1960 (*L. W. Quate* coll.); Ban Me Thout, 500 m, 1 Female, 8 nymphs (in 2 exs hind portion of abdomen missing), 16-18.iv.1960, (*L. W. Quate and S. Quatte* coll.); M'Drak E. of BanMe Thuot, 4-600 m, 3 Females, 1 nymph (in one ex hind portion of abdomen missing), 8-19.xii.1960 (*L. W. Quate* coll.).

Distribution : Widely distributed in the Oriental Region. Also recorded from Bismark Island.

IRDEXINAE

47. *Irdex nitidipennis* (Bormans)

Material examined : LAOS : Sayaboury Prov., Sayaboury, 1 Female, 14.xii.1965 (*a native* collector); THAILAND : Chiang Dao : Chiang Mai Prov., 1 Female, 15.iv.1965 (*P. D. Ashlok* coll.); same data, 450 m, 1 Male, 1 Female, 5-11.iv.1958, in a dead tree (*T. C. Maa* coll.); Chiangmai : Fang, 500 m, 2 Females, 1 ex (hind portion of body broken), 15,19.iv.1958 (*T. C. Maa* coll.).

Distribution : India, Nepal, Bhutan, Myanmar, Indonesia : Sumatra and Hainan Isls.

Remarks : Macroptorous and brachypterous specimens are present.

GERACINAE

48. *Pseudovostox brindlei* sp.n.
(figs. 106–110)

Male : Head and pronotum blackish brown, latter with sides and posterior margin yellow; antennae light brown; elytra and wings blackish brown, former with a yellow transverse stripe near shoulder and posterior margin, latter with a yellow stripe along the external and hind border; abdomen and forceps dark blackish brown.

Head about as broad as long, frons weakly convex, smooth, sutures obsolete, hind margin in middle scarcely emarginate. Antennae (with only basal segment in Holotype) with basal segment, shorter than the distance between antennal bases. Pronotum about as broad as long, gently narrowed posteriorly, sides and hind margin rounded, prozona convex and metazona depressed, median sulcus distinct. Legs typical of the genus. Elytra and wings well developed, smooth and impunctate. Abdomen spindle shaped, convex, cuticle smooth and impunctate. Penultimate sternite transverse, hind margin feebly concave, manubrium about as long as the sternite, narrowed apically. Ultimate tergite transverse, sloping and narrowed backwards, hind margin in middle straight, oblique above the bases of forceps. Forceps short, contiguous, almost straight, tapering apically with tip gently hooked, at base, in middle, above with a vertical crest. Genitalia as seen in fig 109.

Measurements : Length : body – 4.6 mm, forceps - 0.5 mm.

Female : Agrees with males in most characters except that sometimes yellow stripe on elytra near shoulder ill defined and penultimate sternite broadly rounded posteriorly. Antennae (partly broken, in one specimen 12 segments remaining), 1st stout, gently expanded apically, shorter than the distance between antennal bases; 2nd short; 3rd long and cylindrical; 4th stouter and shorter than preceding; 5th about as long as 3rd but stouter, remaining gradually increasing in length. Legs with fore femora stout, hind tarsi with 1st segment distinctly longer than the combined length of 2nd and 3rd; 2nd short, about as long as broad; claw with a small arolium.

Measurements : Length : body – 4.4-4.5 mm, forceps – 0.5 mm.

Material examined : VIETNAM : 17 km E Phan Thiet, Djiring, 1300 m, Holotype Male (genitalia mounted between two coverslips and pinned with the specimen), 7.x.1960 (L. W. Quate coll.); Paratypes, 6 km SW Dalat, 1550 m, 1 Female, 1 nymph, 11.ix.1960, (J. L. Gressitt coll.); 17 km S. of Dilinh, 1300 m, 1 Female, 6-13.x.1960 (C. M. Yoshimoto coll.); Fyan, 900-1000 m, 1 Female, 11.vii.-9.viii.1961 (N. R. Spencer coll.); 6 km S., 1400-1500 m, 2 Females, 9.vi.-7.vii.1961 (N. R. Spencer coll.).

Remarks : This species comes close to *P. fasciatus* (Bormans) but differs in having the eyes longer than post-ocular area; elytra with a transverse stripe along the hind

margin. Besides males parameres in the described species are long and narrow and apically aciculate whereas in *P. fasciatus* these are comparatively less narrowed and acuminate.

A syntype Female of *Labia fasciata* Bormans, 1894, labelled as "Carin Chebà, 900-1100 m, L. Fea,v-xii.88" was examined through the courtesy the of Dr. G. Demoulin, Chef de la Section Entomologie, Institut Royal des Sciences naturelles de Belgique, Bruxelles. A dorsal view of this male and its genitalia (figs. 111 and 113) is given for comparison.

49. *Pseudovostox fasciatus* (Bormans)
(Figs. 111-113)

Material examined : VIETNAM : Kontum, N. of Pleiku, 550 m, 1 Male, 13.v.1960 (*L. W. Quate* coll.); THAILAND : NW Chiangmai, Fang, 500 m, 1 Female, 12-19.iv.1958 (*T. C. Maa* coll.); (S), Banna Chawang nr Nabon, 70 m, 1 Female, 4.9.1958, (*J. L. Gressitt* coll.).

Measurements : Male : Length : body – 3.8 mm, forceps – 0.5; Female : Length : body – 3.3 mm, forceps – 0.5 mm.

Distribution Myanmar.

50. *Pseudovostox bicolour* Borelli

Material examined : VIETNAM : Dalat 6 km S, 1400-1500 m, 2 Females, 9.vi.-7.vii.1961, (*N. R. Spencer* coll.).

Measurements : Female : Length: body – 5.3 mm, forceps – 0.6 mm.

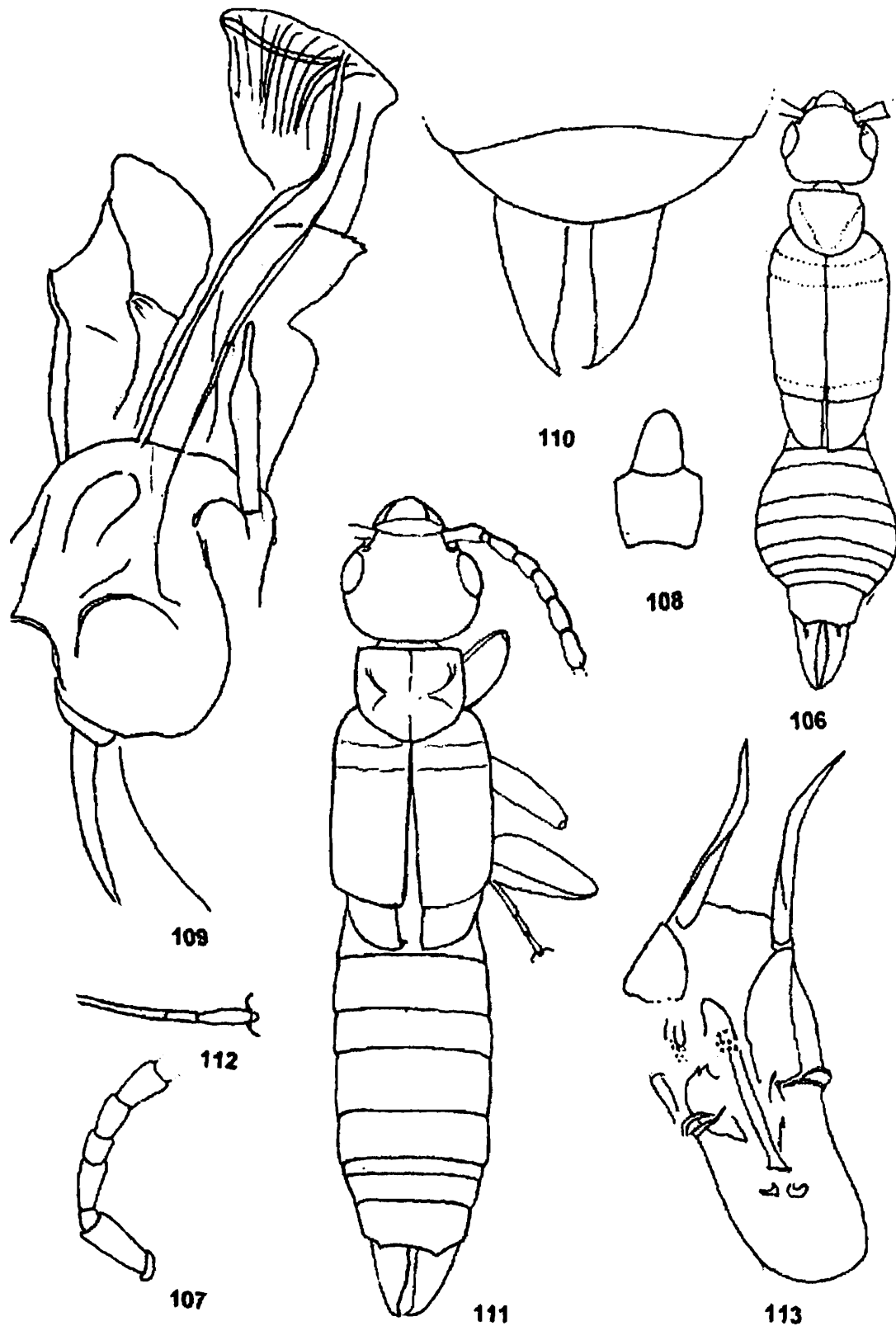
Distribution : Philippine Islands and Borneo.

LABIINAE

51. *Apovostox stella* (Bormans)

Material examined : THAILAND : Trang Prov., Khaophappa, Khaochang, 200-400 m, 3 Males (1 Male with genitalia mounted between two coverslips and pinned with specimen), 13.i.1964 (*A. Samuelson* coll.); VIETNAM : Mt. Lang, Bian, 1500-2000 m, 1 Female, 19.v-8.vi.1961 (*N. R. Spencer* coll.).

Distribution : Malaya, Borneo and Philippine Islands. Recorded for the first time from Thailand and Vietnam.



Figs. 106-113 : *Pseudovostox brindlei* sp.n., Holotype Male, 106. Dorsal view; Paratype Female, 107. A few basal antennal segments; Holotype Male, 108. Penultimate sternite with manubrium; 109. Genitalia; Paratype Female, 110. Ultimate tergite and forceps; *Pseudovostox faciatus* (Bormans), Syntype Male, 111. Dorsal view; 112. Hind tarsi, 113. Genitalia.

52. *Chaetospasia lanceolata* Borelli

Material examined : THAILAND : Trang Prov., Khaophappa, Khaochang, 200-400 m, 1 Male, 30-31.xii.1963, (A. Samuelson coll.); LAOS: Vientiane Prov., Ban Van Eue, 1 Female, 30.xi.1965 (Native collector - Randon-Bishop Mus. coll.).

Distribution : Philippine Islands. First time reported from Thailand and Laos.

53. *Chaetospasia silvestrii* Borelli

(figs 114-116)

Material examined : THAILAND (c) : Pakchong, NE of Bangkok, 1 Male, 4 Females, 2.xii.1957; same data, 2 Males (1 Male with genitalia mounted between two coverslips and pinned with the specimen), 3.xii.1957; (J.L.Gressitt coll.); Chiang Mai Prov. Chiangdao, 450 m, 4 Females, 5-11.iv.1958, ex dead Banana plant (T.C.Maa coll.).

Distribution : China (Yunnan), Vietnam. Reported for the first time from Thailand.

54. *Circolabia curvicauda* (Motschulsky)

Material examined : THAILAND (c) : Pakchong, 100 m, NE of Bangkok, 3 Males, 2 Females, 3.xii.1957 (J.L.Gressitt coll.); (NW) Chiangmai Prov., Chiangdao, 450 m, 1 ex (without hind portion of body), 1 Male, 1 Female, 5-11.iv.1958, in a dead tree; Doi Suthep, 1278 m, 1 Female, 29.iii.-4.v.1958, (T. C. Maa coll.); Trang Prov., Khaophappa, Khaochang, 1 ex (hind portion of body missing), 1 Male, 30-31.xii.1963, (A. Samuelson coll.); S. CHINA : Kwangtung, Canton, Lingnan Univ., 2 Males, 3 Females, 1 nymph, 10.viii.1950 (C. M. Yoshimoto Coll.); HONGKONG : N.T. Sai Kung Station, 1 Male, 2.xi.1964, (W. J. Voss and Hui Wai Ming, Roun); Sai Kung Station, 1 ex (hind portion of body missing), 1 Male, 1 nymph, 22.iv.1965 (C. Y. Yoshimoto coll.).

Distribution : Worldwide.

CHELISOCHIDAE

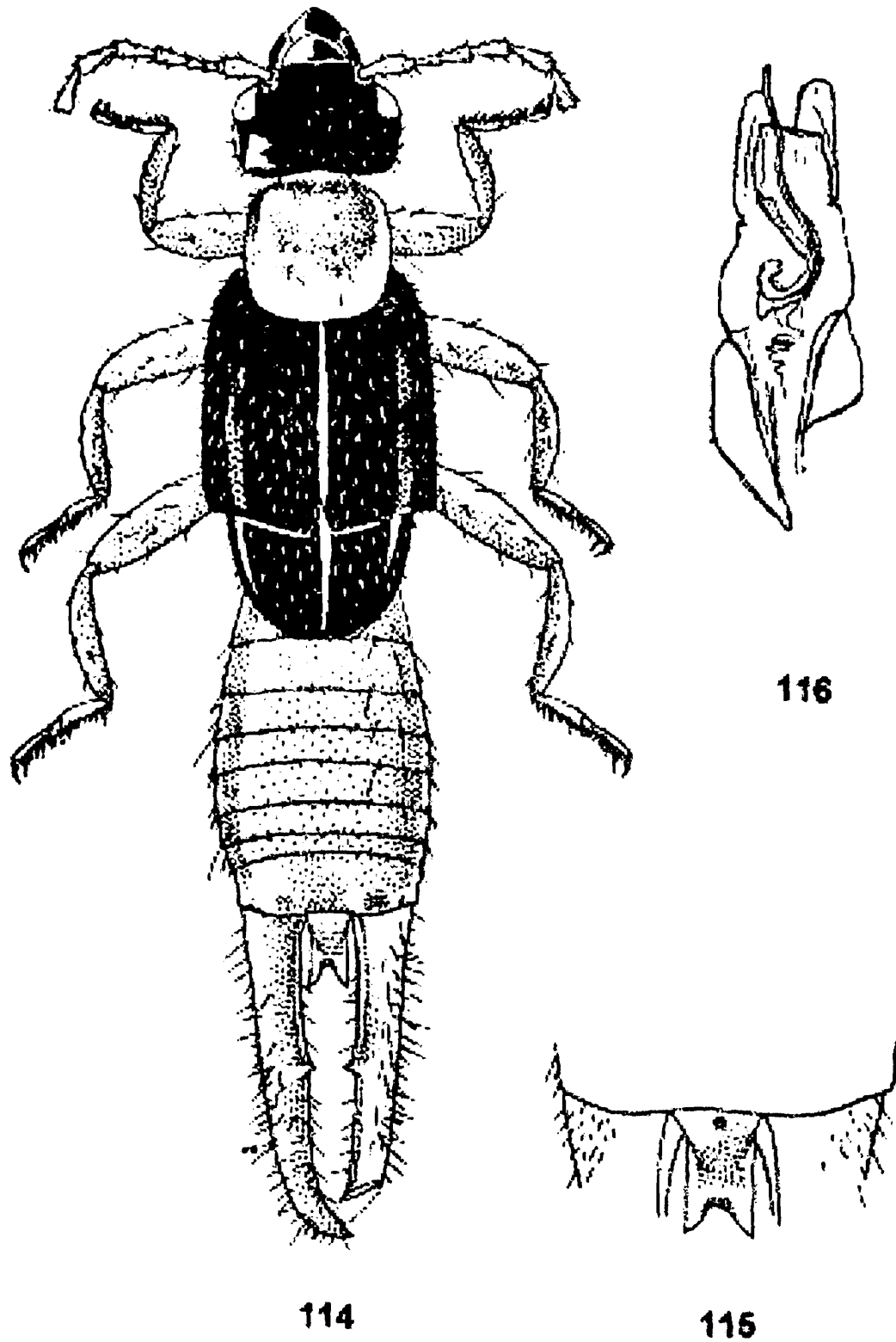
CHELISOCHINAE

55. *Euenkrates brindleyi* sp.n.

(figs. 117-120)

Male : General colour blackish brown, head, antennae, wings and elytra black; pronotum and legs brownish yellow.

Head about as long as broad, smooth, frons and occiput feebly raised, sutures marked by a fine impression, hind margin emarginate in middle. Eyes shorter than post-ocular



Figs. 114-116 : *Chaetospania silvestrii* Borelli, Male. 114. Dorsal view; 115. Pygidium with a portion of ultimate tergite and forceps, enlarged; 116. Genitalia.

area. Antennae (broken) only basal segment remaining, long, slender, narrowed basally, about as long as the distance between antennal bases. Pronotum about as long as broad, parallel sided, hind angles and margin rounded, median sulcus distinct, prozona raised and metazona depressed. Legs long and slender, hind femora not distinctly furrowed apically, tarsi slightly shorter than the greatest width of pronotum, 1st segment about as long as the combined length of 2nd and 3rd segments. Elytra and wings well developed, coriaceous, smooth. Abdomen long, narrowed at base, tergites smooth, weakly convex, lateral folds on 3rd and 4th tergites distinct. Penultimate sternite transverse, hind margin rounded with slight emargination in middle. Ultimate tergite transverse, smooth, weakly convex above, posteriorly, in middle, depressed with a pair of compressed tubercles on either side of median line, feebly tumid above the base of forceps and provided with a few compressed tubercles, postero-lateral angles a little projecting and hind margin trisinate, oblique laterally. Pygidium transverse, turned upwards with two a pointed tubercle laterally and sinuate in middle. Forceps remote at base, cylindrical, tapering apically, gently arcuate, apices gently hooked, internal margin at base with a small tooth turned ventrally, followed by another sharp and larger tooth, afterwards three smaller tooth. Genitalia as seen in fig. 119 & 120.

Material examined : Holotype Male (genitalia mounted between two coverslips and pinned with the specimen), THAILAND (S), Banna, Chawang nr Nabon, 70 m, 6.ix.1958, (J. L. Gressitt coll.).

Measurements : Length : Body – 10.4 mm; forceps – 4.2 mm.

Remarks : This species comes close to *E. brindleyi* Srivastava and Kovac, from Malaysia but differs by the shape of pronotum in being about as long as broad (*vs* slightly longer than broad in *E. brindleyi*); penultimate sternite slightly emarginate in middle (*vs* truncate); pygidium with a pair of triangular pointed tooth and in middle emarginate (*vs* margin entire and obtusely rounded) and forceps at base with a ventrally directed tooth followed by a larger tooth, afterwards with a few small teeth (*vs* at basal one third with a tooth).

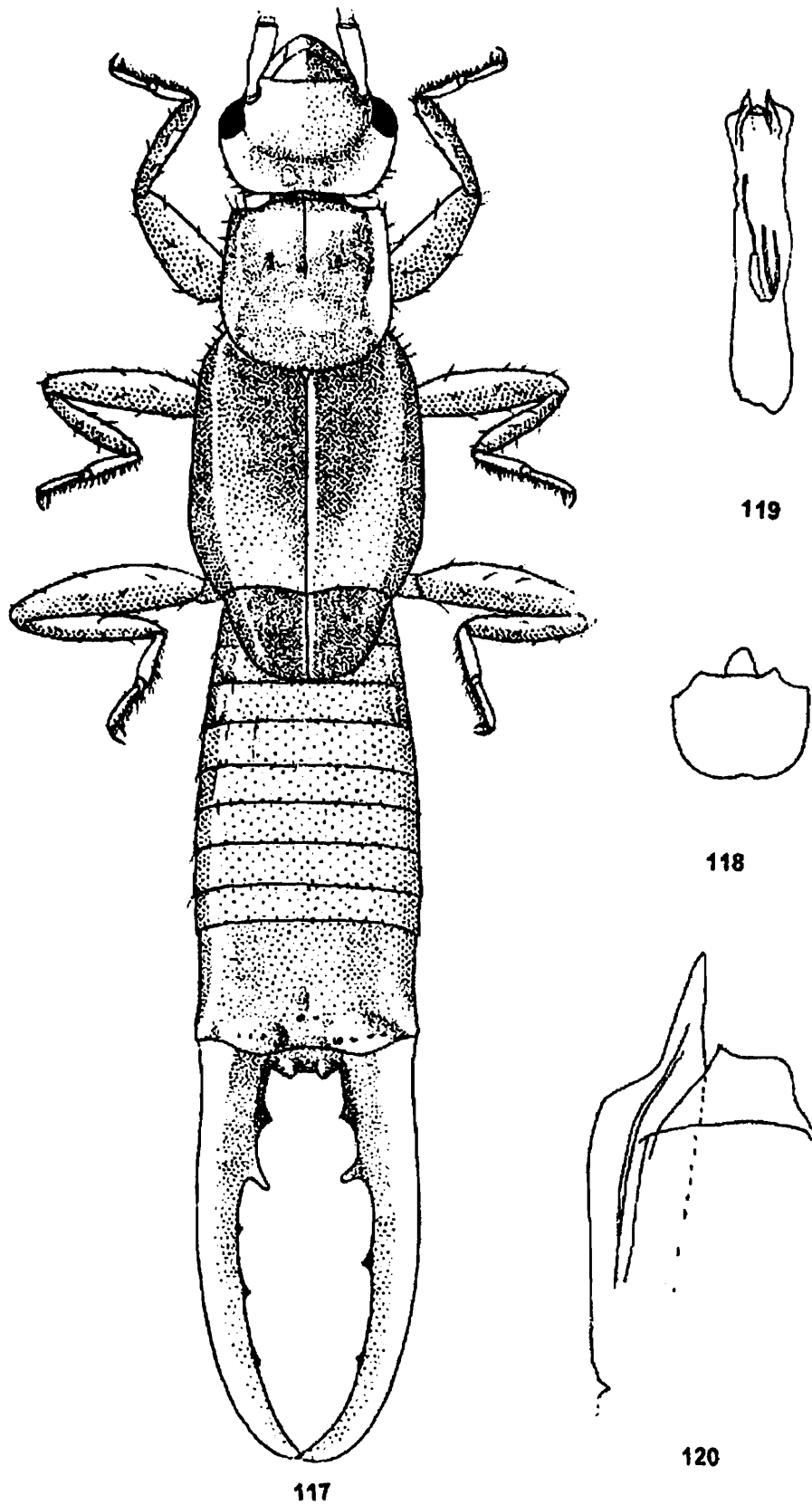
56. *Adiathetus glaucopterus* (Bormans)

Material examined : THAILAND, Chiangmai Prov., Chiangdao, 450m, 1 female, iv 5.ii.1958, found in dead tree (T. C. Mau coll.).

Distribution : India (Himalaya), Myanmar, Thailand (Chiangdao), Vietnam and China (Yunnan).

57. *Adiathetus maai* sp.n. (figs. 121–126)

Male General colour shining brownish black; antennae with two preapical segments yellowish brown; inner wing tip yellow; hind femora and tarsi brown and forceps reddish brown.



Figs. 117-120 : *Euenkrates brindlei* sp.n., Holotype Male, 117. Dorsal view; 118. Penultimate sternite; 119. Genitalia; 120. Paramere, enlarged.

Head slightly longer than broad, smooth, frons and occiput moderately convex, sutures marked by fine depressed lines, hind margin emarginate. Eyes small, about half as long as the post-ocular area. Antennae (partly broken) 17-segmented or more, 1st stout, expanded apically, about as long as the distance between antennal bases; 2nd short; 3rd long and cylindrical; 4th stouter and slightly shorter than preceding and succeeding segments; 5th about as long as 3rd but stouter; remaining gradually thinning and increasing in length, each narrowed basally. Pronotum slightly longer than broad, gently widened posteriorly, sides straight, hind angles and margin rounded, median sulcus distinct, prozona convex and metazona weakly depressed. Legs long and slender, hind tibiae furrowed at extreme apex, length of hind tarsi almost equal to greatest width of pronotum, 1st segment almost equal to 3rd. Elytra and wings well developed and coreaceous, former with humeral angle prominent and hind margin concave. Abdomen almost parallel sides, convex, tergites punctulated, lateral folds on 3rd and 4th tergites well marked. Penultimate sternite transverse, smooth, hind margin rounded, scarcely emarginate in middle. Ultimate tergite transverse, smooth but for a few transverse striations, disc convex, posteriorly sloping and depressed in middle with a pair of compressed tubercles, tumid above the bases of forceps hind angles prominent and margin trisinate, faintly oblique above the bases of forceps. Pygidium vertical, about as long as broad, hind margin convex with angles prominent. Forceps stout and depressed, incurved gently in apical one third, internally armed at about middle with a pair of teeth, one ventral and another dorsal projecting upwards. Genitalia as seen in figs. 124 & 125.

Female : Agrees with males in most characters except that ultimate tergite slightly narrower posteriorly; pygidium at base convex and vertical, afterward produced into a horizontal plate, about as long as broad with all margins straight and forceps simple and straight, internal margin differentiated into dorsal and ventral borders, both merging in apical one fourth, armed ventrally with a triangular tooth at basal one fourth followed by small crenations, dorsally with a narrow triangular tooth at basal one third followed by fine crenations.

Measurements Holotype Male : Length : body – 15.6 mm, forceps – 3.2 mm; Paratype 1 Male : Length : body – 15.1 mm, forceps – 3.2 mm; Paratypes 2 Females : Length : body – 15.3-15.5 mm, forceps – 5.3 mm.

Material examined : Holotype Male, Paratype 1 Male (both with genitalia mounted between two coverslips and pinned with the specimen), Paratypes 2 Females, THAILAND (NW) : Chiangmai Prov., Chiangdao, 400 m, 5-11.iv.1958, (T. C. Maa coll.).

Measurements : This species comes very close to *A. metallicus* Srivastava, from India in general body colouration and build but differs, in males, in having the elytra and wings dark brownish black (*vs* elytra and wings with bluish-green metallic sheen in *A. metallicus*; pronotum slightly longer than broad (*vs* about as long as broad); forceps with a ventral and dorsal tooth at about middle and followed by a minute tooth at apical

one third (vs a sharp tooth a little before middle, afterwards margin crenulated) and in Female, pygidium with posterior horizontal lobe about as long as broad with all margins straight (vs slightly longer than broad, sides convex, narrowed posteriorly, hind margin concave with angles prominent).

58. *Hamaxas feae* (Bormans)

Material examined : THAILAND : Chiangmai Prov., Fang (Agr. Exp. Station) 600 m, 1 Male (genitalia mounted between two coverslips and pinned with the specimen), 14.vi.1965 (P. D. Aslock coll.- U. S. Japan Sci. Coop. Programme; Trang Prov., Khaophappa Khaochang, 200 m, 1 Female, 1-3.i.1964, Light Trap (G. A. Samuelson coll.).

Distribution : Oriental, New Guinea and New Zealand.

59. *Hamaxas kozlovi* Semenov and Bey-Bienko
(figs 127-130)

Material examined : CHINA (S) : Fukien, Shaow, Tachulan, 1000 m, 1 Male (genitalia mounted between two coverslips and pinned with the specimen and penultimate sternite mounted on a card), 21.v.1942; same data, 1 Female, 26.iv.1942; same data, 1 Female, 2-6.v.1943; 1 Female, 6-9.vi.1943; Chungan, Sien-fengling, 1 Female, 27.iv.1942 (all T. C. Maa coll.).

Distribution : Myanmar, South China and Mongolia.

60. *Proreus abdominalis* Ramamurthi

Material examined : INDIA : Bengal (now West Bengal), Birbhum, Santiniketan, 1 Female,....x. 1939 (T. C. Maa coll.); VIETNAM : Karyu, Danar, 200 m, 2 Males (1 Male with genitalia mounted between two coverslips and penultimate sternite on a card, both pinned with the specimen), 1 Female, 1 nymph, 11-28.ii.1961 (N. R. Spencer coll.), Dak Song 76 km SW of BannMe Thout, 870 m, 1 Female, 19-21.v.1960 (L. W. Quate coll.); 17 kms of Dilinh, 1300 m, 1 Female, 6-13.x.1960; Dilinh (Djiring), 1 Female, at light 27.ix.-14.x.1960; Nha Trang, 1 Female, 17-26.xii.1960; M'Drak, E. of BanMe Thout, 4-600 m, 1 Female, 8-19.xii. 1960, same data, 4 Males, 5 Females, 8-19.xii.1960, Light Trap (C. M. Yoshimoto coll.).

Distribution : India and Vietnam (present record).

Remarks : The yellow stripe on elytra and wings is sometimes not distinct. Forceps in males may be more curved or in some smaller specimens almost straight except in apical one third gently incurved and inner margin is finely crenulated terminating into

a larger tooth at apical one third, afterwards unarmed or smooth. The Indian specimens have inner crenations and pre-apical tooth of forceps more pronounced.

This species (Srivastava, 1976) was treated as a subspecies of *P. simulans*. It is now established that it is a distinct species.

61. *Proreus simulans* (Stål)

Material examined : THAILAND : Pak Chong, 1 Male, 3.xii.1957, (*T. C. Maa* coll.); Pakchong NE of Bangkok, Light Trap, 1 Male, 1 Female, 1.xii.1957 (*J. L. Gressitt* coll.); LAOS: Vientiane, 1 Female, 9.v.1965, 1 Female, at light (*P. D. Ashlock* coll.); same data, light trap, 2 Females, 11.v.1965 (*J. L. Gressitt* coll.); same data, 1 Female, 31.v.- 3.vi.1960, (*T. C. Maa* coll.); Ban-van-Eue, 800 m, SE of Phou-Kowkuei, 1 Female, 11.iv.1965; Vintiane Prov., Ban-van-Eue, 2 Males, 4 Females, 32 nymphs, 30.xi.1965, same data, 1 Male, 15.ii.1966 (Native collector, RONDON-BISHOP MUS. COLLECTION); same data, 800 m, 2 Females, 11.iv.1965; same data, Phou Kou Khouei, 1 Female, 12-13.iv.1965 (*J. L. Gressitt* coll.); Moug Sing, NW of Luang Prabang, 650 m, 1 Female, 6-10.vi.1960 (*S. Quate* coll.); CHINA (S) : Fukien, Shaow Shui Peikai, 1 Male, ...vi.1943; same data, Naping, 3 Females, 24.vii.1940 (*T. C. Maa* coll.).

Distribution : Oriental Region; not so far reported from India.

Remarks : This species resembles closely with *P. abdominalis* Ramamuarthi, but differs, in males, by the inner dentation of forceps having a triangular horizontal tooth at about middle followed by fine crenations terminating into a small triangular tooth at apical one third; otherwise margin smooth.

FORFICULIDAE

OPISTHOCOSMIINAE

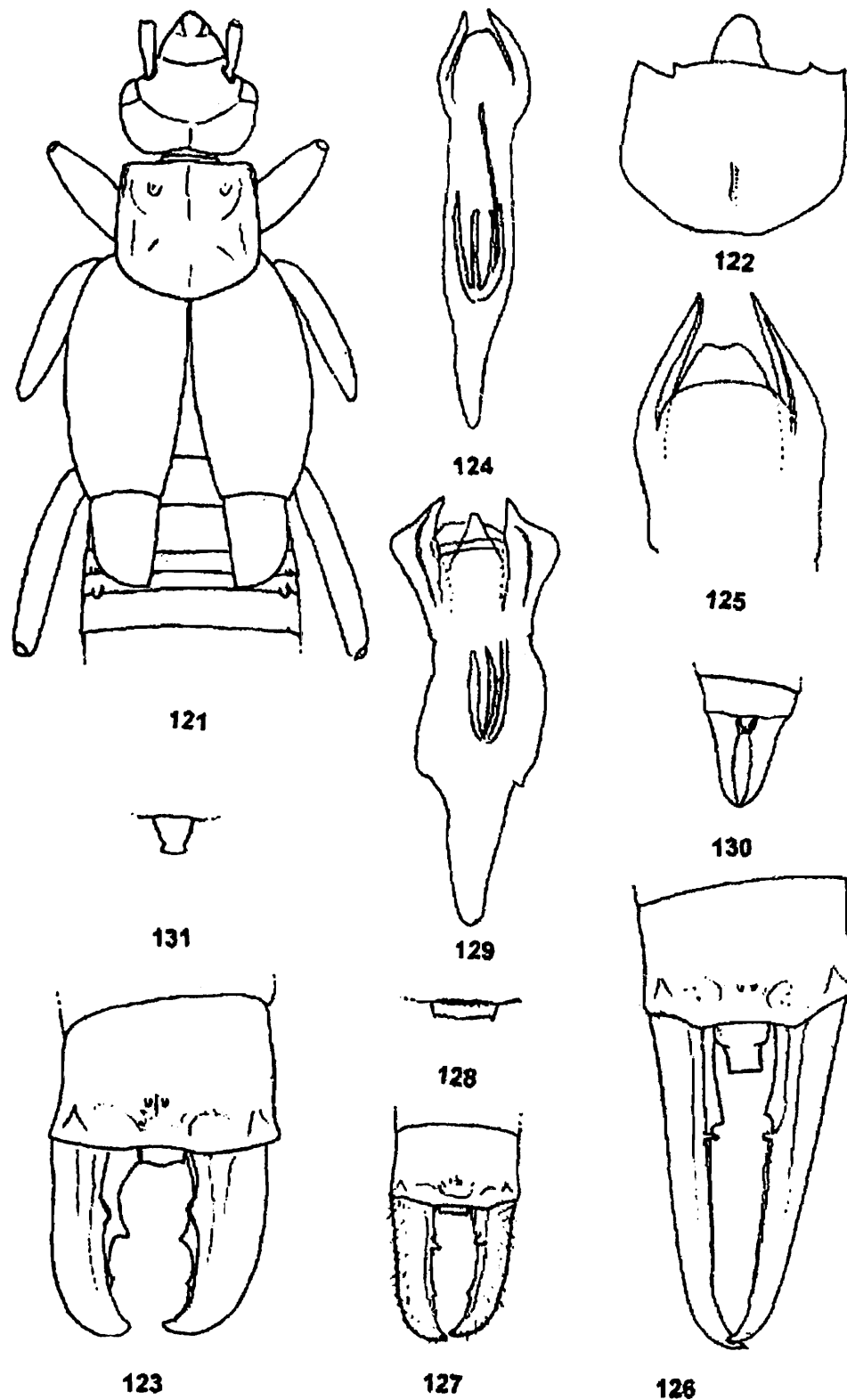
62. *Hypurgus fulvus* Burr (figs 132)

Material examined : VIETNAM, DiLinh (Djiring), 1 Male, 22-28.iv.1960, at light, (*S. Quate* coll.).

Distributioun : Myanmar, Sumatra, Philippine Islands and New Guinea.

63. *Paratimomenus yoshimotoi* sp.n. (figs 133-136)

Male : General colour blackish brown; legs light brown; pronotum elytra and wings yellow, elytra with a strip of dark brown along the sutural margin.



Figs. 121-131 : *Adiathetus maai* sp.n., Holotype Male; 121. Anterior portion of body; 122. Penultimate sternite with manubrium; 123. Ultimate tergite and forceps; 124. Genitalia; 125. Anterior portion of genitalia, enlarged; Paratype Female; 126. Ultimate tergite and forceps; *Hamaxas kozlovi* Semenov and Bey-Bienko, Male; 127. Ultimate tergite and forceps; 128. Pygidium, enlarged; 129. Genitalia; Female; 130. Ultimate tergite and forceps; 131. Pygidium, enlarged.

Head longer than broad, smooth, shining with an oily lustre, frons convex, sutures obsolete, hind margin slightly emarginate. Eyes distinct, but shorter than post-ocular area. Antennae with basal three segments on the right and five basal segments on the left remaining, basal segment stout, narrowed at base and gently expanded apically, about as long as the distance between antennal bases; 2nd short, about as long as broad; 3rd long, slender, about three times longer than broad; 4th slightly shorter than preceding, stouter, slightly expanded apically; 5th slightly longer than 3rd but stouter. Pronotum slightly transverse, smooth, sides gently reflexed, straight, antero-lateral angles projecting, hind angles and margin semicircular, median sulcus distinct, pro-zona convex, differentiated from weakly depressed metazona. Elytra and wings well developed, smooth, corceaceous, former with humeral angles weak and hind margin oblique. Legs typical of the genus; hind tarsi with first segment longer than 3rd; 2nd lobed, enlarged, clad on underside with pubescence, claw without an arolium. Abdomen spindle shaped, tergites convex, smooth, lateral folds on 3rd and 4th tergites distinct, former comparatively weaker, sides of segments convex. Penultimate sternite transverse, smooth, narrowed posteriorly, hind margin subtruncate. Ultimate tergite transverse, smooth, narrowed posteriorly, hind margin in middle straight, above the base of forceps oblique and gently concave, disc convex, sloping backwards, near hind margin above the bases of forceps with low elevation and area in between depressed. Pygidium hardly visible from above, vertical, posteriorly emarginate in middle. Forceps long, slender, attenuate posteriorly, almost straight in basal 2/3, afterwards incurved, apices hooked, pointed and crossing, inner margin finely serrated in basal 1/3, afterwards serrations weaker, a little before basal half, a sharp triangular, vertical tooth directed posteriorly present. Genitalia with parameres broad and virga tubular (fig 136).

Measurements : Holotype Male : Length : body - 8.7 mm; Forceps - 3.3 mm.

Material examined : Holotype Male (genitalia mounted between two coverslips and penultimate on a card and pinned with the specimen), VIETNAM, M'Drak, E of BanMe Thout, 8-19.xii.1960, 400-600 m (*C. M. Yoshimoto* coll.).

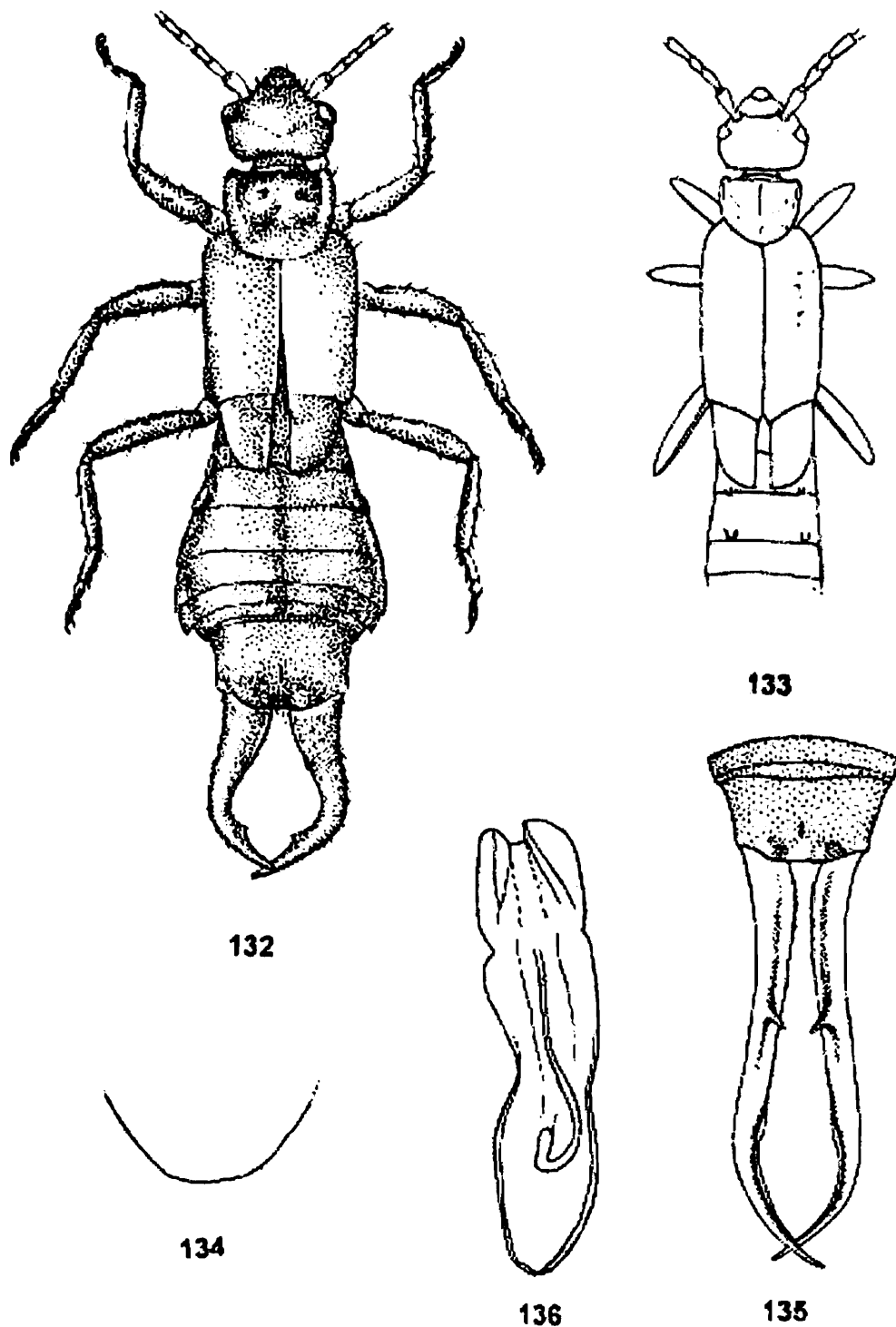
Remarks : The described species comes close to *Paratimomenus simulans* Srivastava, from Philippine Isls in having semicircular pronotum, narrowed posteriorly but differs in the shape of forceps armed in a little beyond middle above with a sharp vertical tooth directed posteriorly and inwardly.

64. *Paratimomenus flavocapitatus* (Shiraki)

(fig. 137)

Material examined : S. CHINA : Fukien, Shaowu: Tachulan, 1000 m, 6 Males, 7 Males, 1942-43 & 45; Shaowu : Shupei-Kei, 11 Female, 17-18.v.1945 (*T. C. Maa* coll.); W. Hupeh, Lichuan Dist., Sui-sa-pa, 1 Female, 27.vii.1948 (*J. L. Gressitt* coll.).

Distribution : Tiwan and China.



Figs. 132-136 : *Hypergus fulvus* Burr, Male, 132. Dorsal view; *Paratimomenus yoshimotoi* sp.n., Holotype Male; 133. Anterior portion of body; 134. Posterior half of penultimate sternite; 135. Ultimate tergite and forceps; 136. Genitalia.

65. *Timomenus aeris* (Shiraki)

Material examined : S. CHINA : Kwangtung, Loh Chang Dist., 1 Female, 1948 (*J.L.Gressitt* coll.); Kwangtung, Canton Linguan Univ., 1 Male, 10.viii.1950 (*L. & M. Gressitt* coll.); Fukien, Sungki, 1 Male, 27.viii.1940; Shaowu, 1 Male, ...x.1942; 1 Female, ...vii. 1942; Shaown City, 1 Male, 4 Females, 1942 (*T.C.Maa* coll.); Vietnam: Di Linh (Djiring), 920 m, 1 Male, 22-28.iv.1960 (*L.W.Quate* coll.).

Distribution : Taiwan, Vietnam and Sumatra.

66. *Timomenus lugens* (Bormans)

Material examined : LAOS : Sayaboury Prov., Sayaboury, 4 Males, 1 Female, 30.ix.1966, 15.i.1966 & 6.xii.1965; Vientiane Prov., Ban van Eue, 1 Male, 1 Female, 30.xi.1965, Ban van Eue, 20 km E of Phou-Kow-Kuei, 1 Male, 15-31.vi.1965 (*Native* collector); BanMe Thaot, 500 m, 1 Female, 20-24.xii.1960 (*C.M. Yoshimoto* coll.), 1 Female, 16-18.v.1960 (*L.W.Quate* coll.).

THAILAND : Chiangmai Prov., Chiangdao, 450 m, 1 Female, 5-11.iv.1958 (*T.C.Maa* coll.); Nakhon Nayok Prov., Khao yi Nat. Park, 1 Female, 6.vi.1965 (*P.D. Ashlock* coll.).

Distribution : India, Myanmar, Laos, Vietnam, South-West China, Malaysia and Borneo.

67. *Timomenus oannes* (Burr)

Material examined : S. CHINA : Kukien, Shaown, Ta Chu Lan, 8 Males, 14 Females, 2 nymphs, 1942-43 Shui Pekai, 1 Female, 13-16.ii.1943; Chungan, Tailiohiao, 1000 m, 1 Male, 7 Females, ii.1943 Sienfengling, 1 Male, 27.iv.1942, Sanchiang, 4 Females, 1942-43 (*T. C. Maa* coll.).

Distribution : India (Assam), Vietnam and China.

68. *Timomenus gressitti* sp.n.
(figs 138-143)

General colour dark chocolate brown or black, antennae, legs, elytra and wing lighter. Build stout.

Head transverse, smooth, frons convex, sutures obsolete, hind margin scarcely emarginate in middle. Eye distinct, shorter than post-ocular area. Antennae with six segments on the right side and five on the left side remaining, 1st stout, narrowed basally and expanded apically, about as long as the distance between antennal bases; 2nd short, about as long as broad; segments 3rd to 6th thin, cylindrical; 4th shorter than

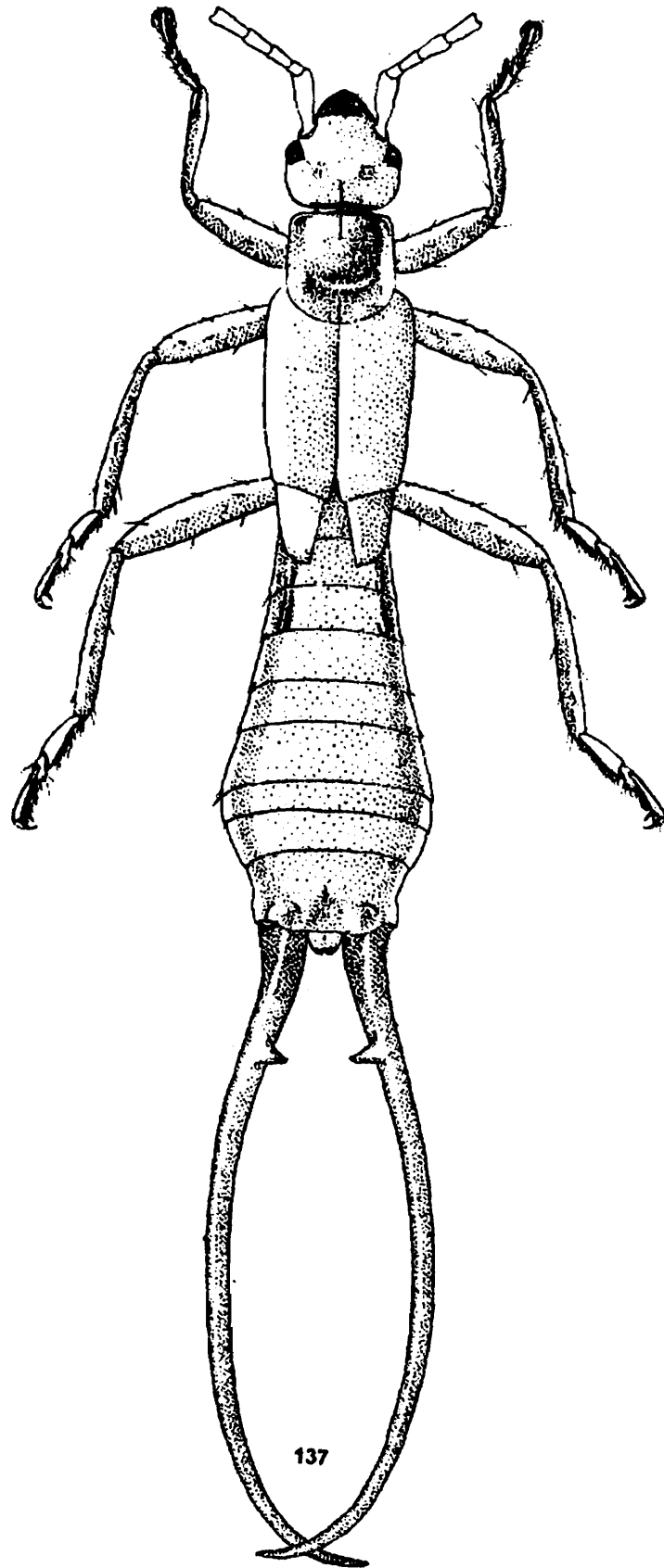


Fig. 137 : *Paratimomenus flavocapitatus* (Shiraki), Male; 137. Dorsal view.

3rd; 5th almost equal to 3rd but shorter than 6th. Pronotum weakly transverse, smooth, sides straight, reflexed, hind angles and margin rounded, median sulcus distinct, prozona raised and well differentiated from depressed metazona. Elytra and wings well developed, smooth, coriaceous, former with humeral angle prominent, hind margin oblique and wings about as long as the pronotum. Legs typical of the genus, hind tarsi with 1st segment compressed, slightly longer than 3rd; 2nd lobed, enlarged; claw without an arolium, finely pubescent on underside. Abdomen weakly convex, obscurely punctate, narrowed at base, gradually enlarging posteriorly upto 7th tergite and again narrowing, sides of segments, lateral folds on 3rd and 4th tergites distinct, former weaker, sides of segments 5th and 6th with lateral tubercles, often on 5th one weaker. Penultimate sternite transverse, smooth, hind margin broadly rounded, in middle scarcely emarginate. Ultimate tergite transverse, narrowed, obscurely punctulated, disc weakly convex, with *inverted V-shaped depression in middle posteriorly hind margin in middle straight, laterally above bases of forceps oblique. Pygidium short, rounded. Forceps constricted at base, afterwards gradually diverging in basal two thirds and thence incurved, branches cylindrical, attenuate posteriorly, tips pointed and hooked, internally at base with a serrated ridge terminating into pointed tooth, otherwise branches unarmed. Genitalia with parameres long and narrow; virga not visible.

Measurements : Holotype Male : Length : body – 9.5 mm; forceps – 3.6 mm; Paratypes 3 Males : Length : body – 8.9-11.1 mm; forceps – 3.5-4.0 mm.

Female : Agrees with males in most characters except ultimate tergite more strongly narrowed posteriorly and forceps simple and straight, internal margin serrated.

Measurements : Paratype 1 Female : Length: body – 8.0 mm; forceps – 3.5 mm.

Material examined : Holotype Male (genitalia mounted between two coverslips and penultimate sternite mounted on a card and pinned with the specimen), Suisapa, 1000 m, Lichuan Distr. W. Hupeh, China,viii-3.48 (*J.L.Gressitt* coll.); Paratypes 1 Male, same data; Paratype 1 Male, Fukien, S. China, Shaowu : Tachulan, 12.v.1942; Paratype 1 Male, same data, ...iv.1943; Paratype 1 Female, same data, 8.v.1943 (*T. C. Maa* coll.).

Remarks : This species differs from all the known species of the genus by the shape of forceps having a short basal ridge with its inner margin finely serrated and afterwards branches cylindrical, gently incurved with apices hooked.

69. *Eparchus simplex* (Bormans)

Material examined : S. China, Fukien : Shaowu : Tachu Lan, 1000 m, 10 Males, 8 Females, 1942, 43 & 46; Shaipei-Kai, 1 Male, 8-12.vii.1946; Chungan, Sanchiang, 2 Males, 2 Females, 23-28.ii.1942; Chungan, Kuatun, 1 Male, 16.x.1941 (*T.C.Maa* coll.).

Distribution : India, Bhutan, Myanmar, China, Philippine Isls, Malaysia and Sumatra.

70. *Eparchus insignis* (Haan)

Material examined: VIETNAM: M'Dark E of BanMe Thuot, 4-600 m, 1 Female, 8-19.xii.1960, at light (*C.M.Yoshimoto* coll.); Dak Song, 76 km SW of BanMe Thout, 2 Males, 3 Females, 19-21.v.1960, light Trap; 17 km S of Dilinh, 1300 m, 1 Female, 6-13.x.1960; 200 m, 1 Male, 2 Females, 22-28.iv.1960 (*S.Quate & L.W.Quate* coll.); Dalat, 6 km S, 1400-1500, 1 Female, 9.v.-7.vii.1961 (*N.R.Spencer* coll.); Djiring, 1 Female, 900 m, 1 Female, 26.iv.1960 (*L.W.Quate* coll.). THAILAND: Nakhon Nayok Prov, Khao Yai Nat. Park, 1 Female, 6.vi.1965, at light (*P.D.Ashlock* coll.). LAOS : Sedone Prov., Paksong, 1 Male, 18.v.1965 (*P.D.Ashlock* coll.); Viantine Prov., Ban van Eue, 1 Female, 30.xi.1965 (*Native* coll.). SOUTH CHINA : Fukien, Shao-wu: Tachulan, 1000 m, 228 examples (Males, Females and nymphs), 1942-43; Chungan, Upper Kuantun, 400 m, 1 Male, 8.vi.1942; Chungan city, 1 Female, 30.x.1942; Tung MUYUING, 1 Male, x.1941; Kuantun, 5 exs (hind portion broken), 1941-42; Sanchiang, 56 examples (Males, Females and nymphs), 1943; Kwangtseh city, 1 nymph, v.1942 (*T.C.Maa* coll.).

Distribution : Widely distributed in the Oriental Region.

71. *Eparchus spatulatus* sp.n. (Figs. 144-147)

General colour blackish brown, abdominal tergites black in basal half, inner wing tip yellow; finely pubescent. Build slender.

Head about as long as broad, smooth, hind angles rounded and margin slightly emarginate in middle, frons and occiput raised, sutures fine. Eyes prominent, about as long as the post-ocular area. Antennae (partly damaged) five basal segments on both sides remaining, basal segment long and slender, longer than the distance between antennal bases, slightly narrowed basally; 2nd short about as long as broad; 3rd long, slender; 4th longer than preceding, slender and shorter than 5th. Pronotum longer than broad, smooth above, sides gently reflexed, parallel, hind margin rounded, median sulcus distinct, prozona raised, well differentiated from flat metazona. Elytra and wings well developed, coriaceous, smooth, wings a little more than half the length of elytra. Legs long, slender, hind tarsi with first segment compressed, about as long as the third; second broad, lobed, claw without an arolium. Abdomen fusiform, tergites convex, punctulate, punctulations separated from each other by a space more than their diameter, sides of abdominal tergites convex posteriorly. Penultimate sternite transverse, sparsely punctulate, narrowed posteriorly with hind margin in middle subtruncate. Ultimate tergite strongly narrowed posteriorly, convex above, smooth, sloping backwards, hind angles a little projecting and margin trisinate, oblique laterally above bases of forceps. Forceps depressed above at base, raised upwards in basal half, gradually diverging from base to

middle, afterwards horizontal and elongately incurved, inner margin in basal half finely serrated, at middle, above close to internal margin with a spatula shaped projection. Genitalia as seen in figure 146.

Measurements : Length body – 7.8 mm, forceps – 3.0 mm.

Female : Agrees with Male in most characters except that penultimate sternite obtuse in middle posteriorly; ultimate tergite more narrowed posteriorly and forceps simple and straight.

Measurements : Length body - 6.7-7.4 mm; forceps – 1.75-1.85 mm.

Material examined: Holotype Male (genitalia mounted between two cover slips and pinned with the specimen and penultimate sternite mounted on a card with the specimen), VIET NAM, Blao (Balao), 500 m, 14-21.x.1960; Paratypes 1 Female, same data, 600 m; 1 Female, same data, 17 km S of Dilinh, 1300 m, 6-13.x.1960 (*C.M.Yoshimoto* coll.); 1 Female, same data, Dak Song, 76 km SW of BanMe Thuot, 870 m, 19-21.v.1960 (*L.W.Quate* coll.).

72. *Cordax armatus* (Haan)

THAILAND : Chiangmai : Fang, 500 m, 1 Male, 1 Female, ex dead tree (*T.C.Maa* coll.).

LAOS : Vientiane Prov., Gi Sion Vill., de Tha Ngone, 4 Males, 2 Females, 10-24.x.1965 (*Native* coll.).

VIETNAM : 17 km E Phanthiet Rd., 1 Male, 6.x.1960 (*C.M.Yoshimoto* coll.).

S. CHINA : Fukien, Chung An, Bohea Hills, 1 Male, 10.iv.1940, Chungan, 1 Female, 24.vi.1940, Kienyang city, 1 Female, ...x.1941, Changting, Niuling, 1 Male, 21.iv.1941; Shaowu, Tachu Lan, 1000m, 5 Males, 3 Females, 1942-43 (*T.C.Maa* coll.); Kwangtung, S.C., Chunkiang, Lungtauahan, 1 Female, 16.vi.1947; W. Hupeh, Hsiao-ho, 1 Female, 11.viii.1948 (*J.L.Gressitt* coll.).

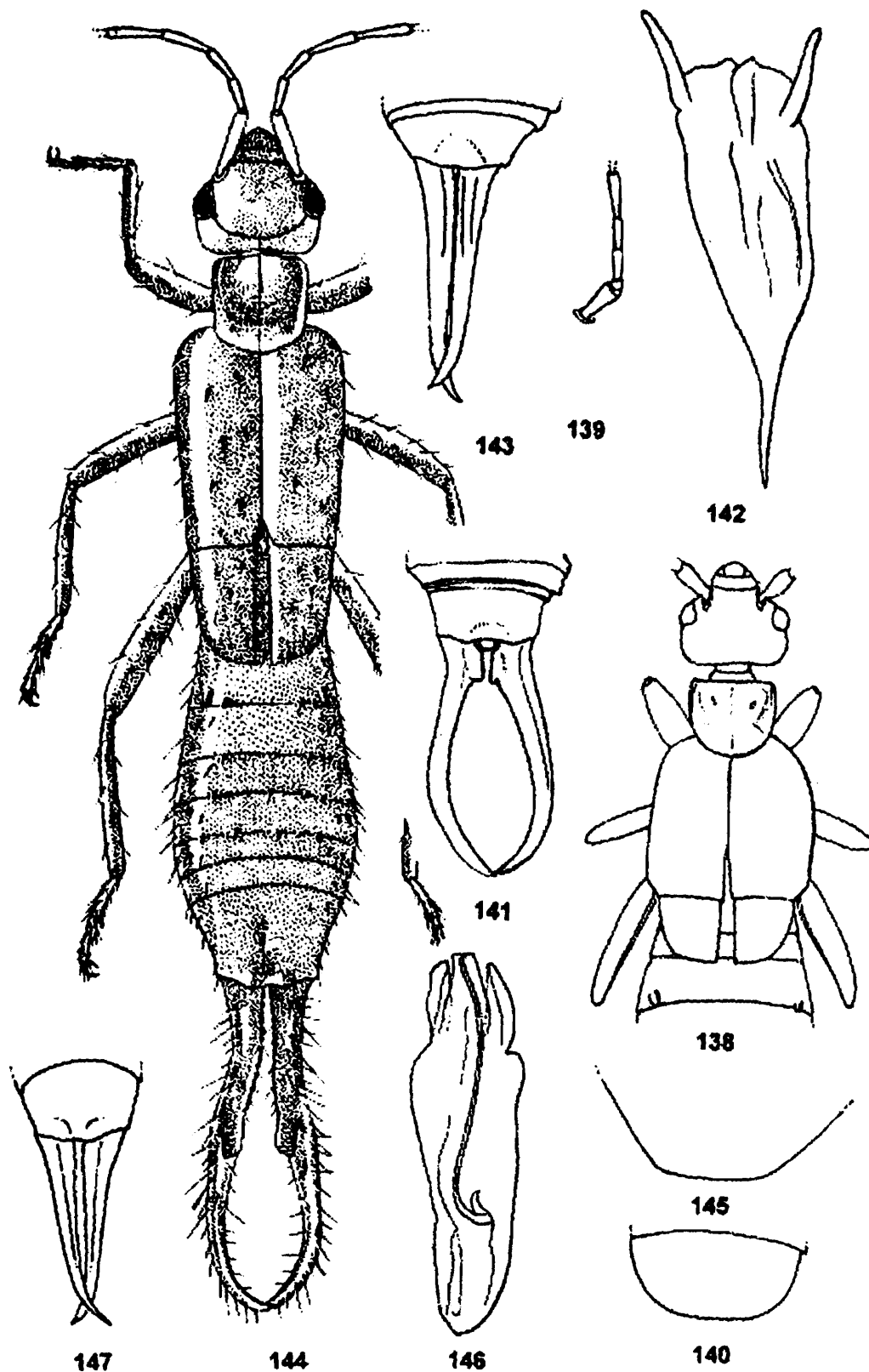
Distribution : Myanmar, Malaysia, Celebes and Sumatra.

Remarks: In one male from Laos inner armature (tooth) is partially developed and in another inner tooth absent.

ALLODAHLINAE

73. *Allodahlia scabriuscula* (Serville)

LAOS : Vientiane prov., Bana Van Eue, 1 Female, 30.vii.1965 (*Native* collector); 1 Female, 16.iii.1966, 1 Female, 2.xi.1966 (*Native* collector); Vientiane, 1 Female,



Figs. 138-147 : *Timomenus gressitti* sp.n., Holotype Male; 138. Anterior portion of body; 139. A few basal antennal segments; 140. Penultimate sternite; 141. Hind portion of body; 142. Genitalia; Paratype Female; 143. Ultimate tergite and forceps; *Eparchus spatulatus* sp.n., Holotype Male; 144. Dorsal view; 146. Genitalia; Paratype Female; 147. Ultimate tergite and forceps.

21.ii.1965; 20 Km E of Phou-kow-kuei, 1 Female, 15-31.v.1965 (*J.A. Rondon* coll.), Muong Sing NW of Luang Prabang, 650 m, 1 Male, 6-10.vi.1960 (*S.Quate & L.Quate* coll.); Tonpheng, 1 Male, 14.ix.1965 (*Native* coll.), 1 Male, 2 Females, 30.ix.1965, 1 Male, 1 Female, 30.x.1965 (*J.A. Rondon* coll.), 1 Male, 31.iii.1966; Kyouang Prov., Ban Sam Thang, 1 Male, 1 Female, 30.xi.1965; Borikhana Prov., Pakkading, 1 Male, 31.vii. 1965; Sayaboury Prov., Sayaboury, 1 Female, 19.ii.1966 (*Native* coll.).

VIETNAM : 17 km S of Dilinh, 1300 m, 1 Female, 6-13.x.1960 (*C.M.Yoshimoto* coll.).

S.CHINA : Fukien : Kie Ow, 1 Male, 1 Female, 8.viii.1940; Shaowu, Tachu lan, 11 Males, 18 Females, 1942-1943; Chungan: Sien-fengling, 1 Male, 1 Female, 27.iv.1942; Sanchiang, 2 Males, 1 Female, 28.ii.1943; Tsilichiao to Sanchilang, 28.ii.1943 (*T. C. Maa* coll.).

Distribution : Oriental Region.

74. *Allodahlia coriacea* (Bormans)

VIETNAM : Karyi Danar, 200 m, 1 Male (forceps weakly developed), 13-28.ii.1961 (*N. R. Spencer* coll.).

LAOS : Pakse, 1 Male, ...iii.1965 (*J.A.Rondon* coll.), 1 Male, 1-15.iv.1965 (*J.L.Gressitt* coll.); Vientiane Prov., Ban van Eue, 1 Female, 15.vi.1966 (*Native* coll.), Vientiane Prov., Phou Kou Khouei, Ban Van Eue, 1 Male, 15.iv.1965 (*J.L.Gressitt* coll.), 20 km E of Phou-Kow-Kuei, 1 Male, 1 Female, 15.v.1965 (*J.A.Rondon* coll.); Van van Eue, 1 Female, 31.vii.1965; Kyouang Prov. Ban Sam Thang, 2 Male, 30.xi.1965; Vientiane Prov., Ban van Eue, 1 nymph, 30.ix.1965 (*Native* coll.), Vientiane Prov., Ban van Eue, 1 Female, ...x.1965 (*Light Trap* coll.), 1 Female, 2.xii.1966 (*Native* coll.); Borikhana Prov., Paksane, 3 Male, 2 Females, 23.xii.1965 (*Native* coll.); Vientiane prov., Dong Dok, 2 Females, 1 Male, 29.xii.1965; Sayaboury Prov., Sayaboury, 1 Male, 12.ii.1965, 1 Female, 14.xii.1965 (*Native* coll.); Toupheng, 1 Male, 1 Female, 30.xi.1966 (*Native* coll.).

THAILAND : Chiangmai Prov., Chiangdao, 450 m, 4 Males, 6 Females, 5-11.iv.1958, in a dead tree (*T.C.Maa* coll.).

Distribution : India, Bhutan, Myanmar, Thailand, Laos, Vietnam, China, Sumatra and Borneo.

ANECHURINAE

75. *Anechura externa* (Bey-Bienko) Comb. nov. (Figs 148-149)

1959. *Forficula davidi externa* Bey-Bienkoi *Ent. Obozr.*, **38** : 417 (Male; China : Yunnan).

1974. *Oreasiobia chinensis* Steinmann, *Folia ent. hung.*, **27** : 196, figs. 27-28 (Male; China : Fujien)
– **Syn. n.**

Material examined : S. CHINA : Fukien, ChungAn Hills, Bohea, 4 Males, 29.iii-1.v.1940, Shaowu, KuHaien Ka, 1 Male, v.1944, Tachulan, 1000 m, 2 Males, 24.v.1942-17.vi.1942 (*T. C. Maa* coll.).

Distribution : China (Yunnan and Fukien).

Remarks : It is evident that both the species are conspecific and *Oreasobia chinensis* Steinmann, is correctly treated as the synonym.

76. *Anechura crinitata* (Shiraki)
(Fig 150)

Material examined : S. CHINA Fukien, Shaowu, Tachulan, 1000m, 1 Male (genitalia mounted between two coverslips and pinned with the specimen), 2 Females, 1942-43 (*T. C. Maa* coll.).

Distribution : Taiwan.

77. *Anechura japonica* (Bormans)
(Figs 151–153)

Material examined : S.CHINA : Fukien, Shaown, Tachulan, 15 Males, 10 Females, 1 nymph, 1942-43; Shupei-kei, 1 Male, 8-13.vii.1946; Chungan : Upper Kuatin, 1400 m, 12 Males, 4 Females, 1941-42; Kwangsoh city, 1 Female, ...v.1942; Chungan, Tsiliohias, 1 Female, -iv.1942; Sienfengling, 1 Female, 27.iv.1942 (*T.C.Maa* coll.).

Distribution : East Asia (Eastern Siberia, from Amur to Vladivostok; Korea, Japan, Manchuria, China).

EUDOHRNIINAE

78. *Eudohrnia zae* (Liu, 1946)
(Figs. 154–155)

Eudohrnia hirsuta Zhang, Ma & Chen, 1992. *Insects of Wuling Mountains area South Western China* : 116 (Type Male, Allotype Female, Paratypes 21 Males, 32 Females; China : Hunnan Prov., Hubei Prov. & Fujian Prov., 600-1630 m – deposited in Institute of Zoology Academia Sinica, Beijing) - **Syn. n.**

Timomenus zae Liu, 1946, *Jl. W. China Border Res. Soc.*, **16**: 6, fig. 2 (Male; Female; China : Mount Omei Lo-Shan.Hsien).

Eudohrnia zae; Brindle, 1968. *Ent. mon. Mag*, **103** : 230.

Material examined : CHINA : W. Hupeh, Lichuan Dist., Sui-sa-pa, 1 Male, 1 Female, 7 nymphs, 27.vii.1948 (*J.L.Gressitt* coll.), 3 Males, 1 Female, 5.viii.1948; Sui-sa-pa to Hsiaoho, 2 Males, 7.viii.1948 (*L & M. Gressitt* coll.), Hsiaoho, 2 Males, 3 Females, 10.viii.1948; Lichuan Dist., W. Hupeh, 1 Male, 2.viii.1948 (*J.L.Gressitt* coll.).

Distribution : China.

Remarks : The above specimens are thickly pubescent and are referable to this species. *Eudohrnia hirsuta* agrees in most details with this species and is treated as a synonym.

79. *Eudohrnia metallica* (Dohrn)

Material examined : LAOS : Vientiane Prov., Ban van Hue, 20 Km E of Phou-Kow-Kuei, 1 Male, 2 Females, 1-15.v.1965 (*J. L. Gressitt* coll.), Ban Van Eue, 9 Males, 4 Females, ii, viii-ix.1965 & 1967; Topheng, 2 Females, 15.vi.-15.ix.1966; Attopen Prov., Houei Kong, 1 Female, 17.vii.1965 (*Native* coll.). S.CHINA : Fukien, Shaowu, Tachu Lan, 1 Male, 24-27.vi.1946 (*T. C. Maa* coll.), Lichuan Dist., W. Hupeh, Sui-sa-pa, 1000 m, 1 Male, 6.viii.1940 (*J. L. Gressitt* coll.).

Distribution : India (mainly North India with a record from Bombay); Nepal, China, Myanmar, Vietnam and Laos.

80. *Pterygida eurypyga* (Bey-Bienko) (Fig 156)

Material examined : WEST CHINA : Yunnan, Kuming, 1 Male, 2.vii.1940 (*T. C. Maa* coll.).

Distributioun : China : Yunnan.

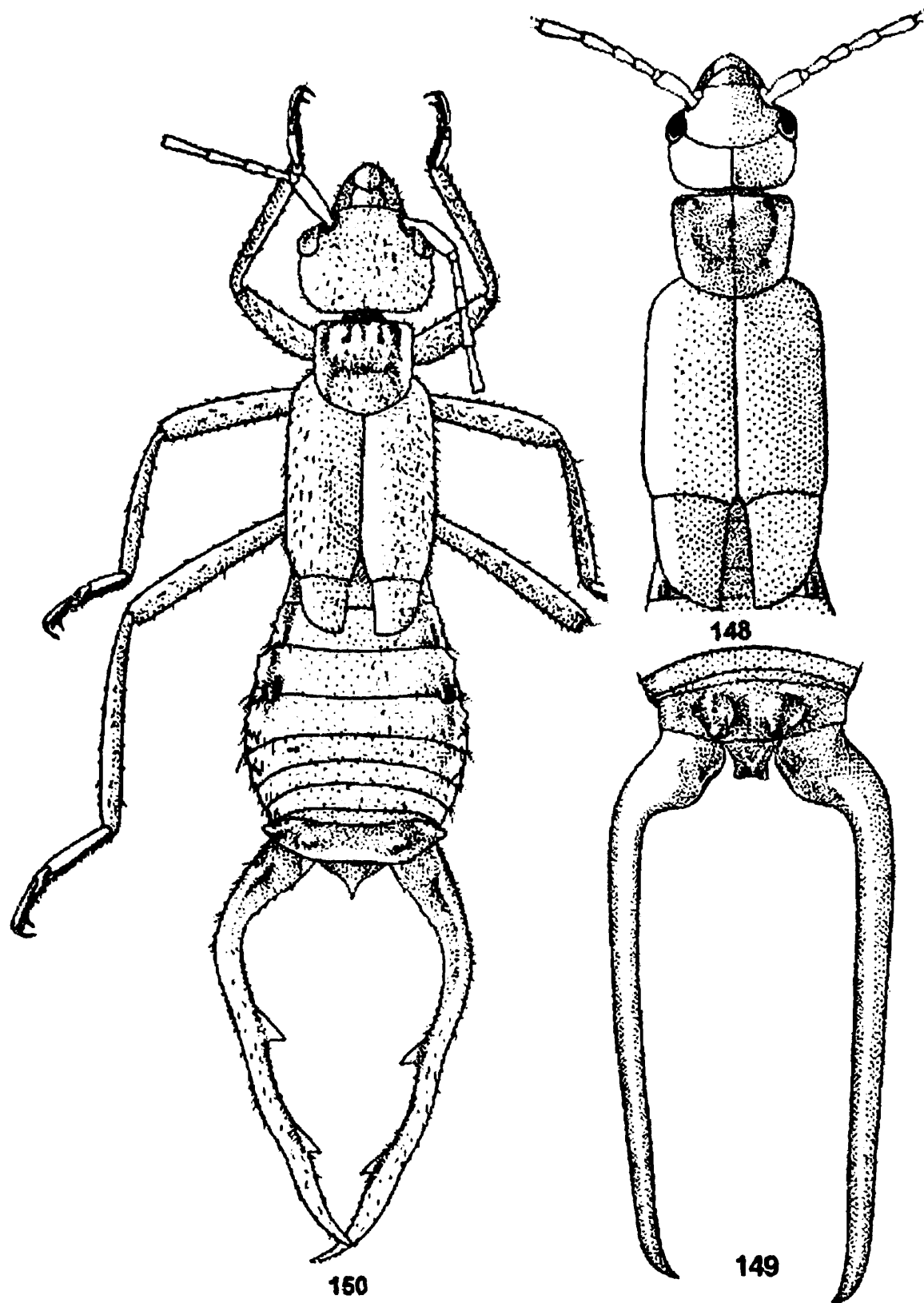
81. *Pterygida intermedia* (Borelli) (Fig. 157-158)

Material examined : LAOS : Vientiane, Ban van Eue, 1 Male, 13.iv.1965, 800 m, 1 Female, 11.iv.1965, Phou Kou Khouei, 3 Males, 15.iv.1965 (*J. L. Gressitt* coll.); 20 km E of Phou Kow Kuei, 1 Female, 1-15.v.1965 (*J. A. Rondon* coll.).

Distribution : Philippine Isls (Luzon) and Laos.

82. *Pterygida annandalei* (Burr, 1904) (Fig. 159-160)

Material examined : LAOS : Vientiane, Ban van Eue, 1 Male, 15.ii.1966 (*Native* collector).



Figs. 148-150 : *Ancehura externa* (Bey-Bienko), Male; 148. Anterior portion of body; 149. Ultimate tergite and forceps; *Anechura crinitata* (Shiraki), Male; 150. Dorsal view.

Distribution : Thailand and Laos.

FORFICULINAE

83. *Elaunon bipartitus* (Kirby) (Fig. 161)

Material examined : S. CHINA, Fukien, YungAn, 13 Male, 19 Females, 1940-42 (Feb-March); Chungan City, 1 Male, 10.ii-iii.1943; Chungan : Sanchiang, 1 Male, 23.iii.1943, Tailichiao, 1 Male, 2 Females, ...x.1941-42; Shaowu, Tachulan, 2 Males, 14-20.vi.1942 (*T. C. Maa* coll.). LAOS : Ban Theuong 18 km NW of Xieng, Khouang, 1035 m, 3 Females, 10-17.viii.1960 (*R.E.Tech* coll.). VIETNAM : M'Drak E. of BanMe Thout, 4-600 m, 16 Males, 42 Females, 8-19.xii.1960 (*C. M. Yoshimoto* coll.).

Distribution : Oriental and Indo-Australian Regions.

84. *Forficula sinica* Bey-Bienko

Material examined : S.CHINA, Fukien, ChungAn, Bohea Hills, 2 Males, 8 Females, 9 nymphs, 1940-1941; Sanchiang, 1 Male, 1 Female, 1943, TungMu Ying, 2 Females, 27.xii.1940; Hotien, 1 Female, 1.vii.1941; Shaowu, Shi Pei Kai, 2 Males, 1 Female, 1941-45; YangAn, 2 Males, 5.v.1941 & 28.iv.1940; Chungan: Kuatun 400 m, 3 Males, 15 Females, 1941-42; Kwangtsh City, 1 Female, -v.1942; Chungan: Sienfengling, 3 Males, 8 Females, 1942; Shaowu: Tachulan, 1000 m, 73 Males, 125 Females, 4 nymphs, 1940-43 (*T.C.Maa* coll.); Hupeh, Lichuan Dist., Sui-sa-Pa, 1 Male, 2 Females, 27.vii.1948 (*J. L. Gressitt* coll.).

Distribution : China (Szechwan, Fukien and Hupeh).

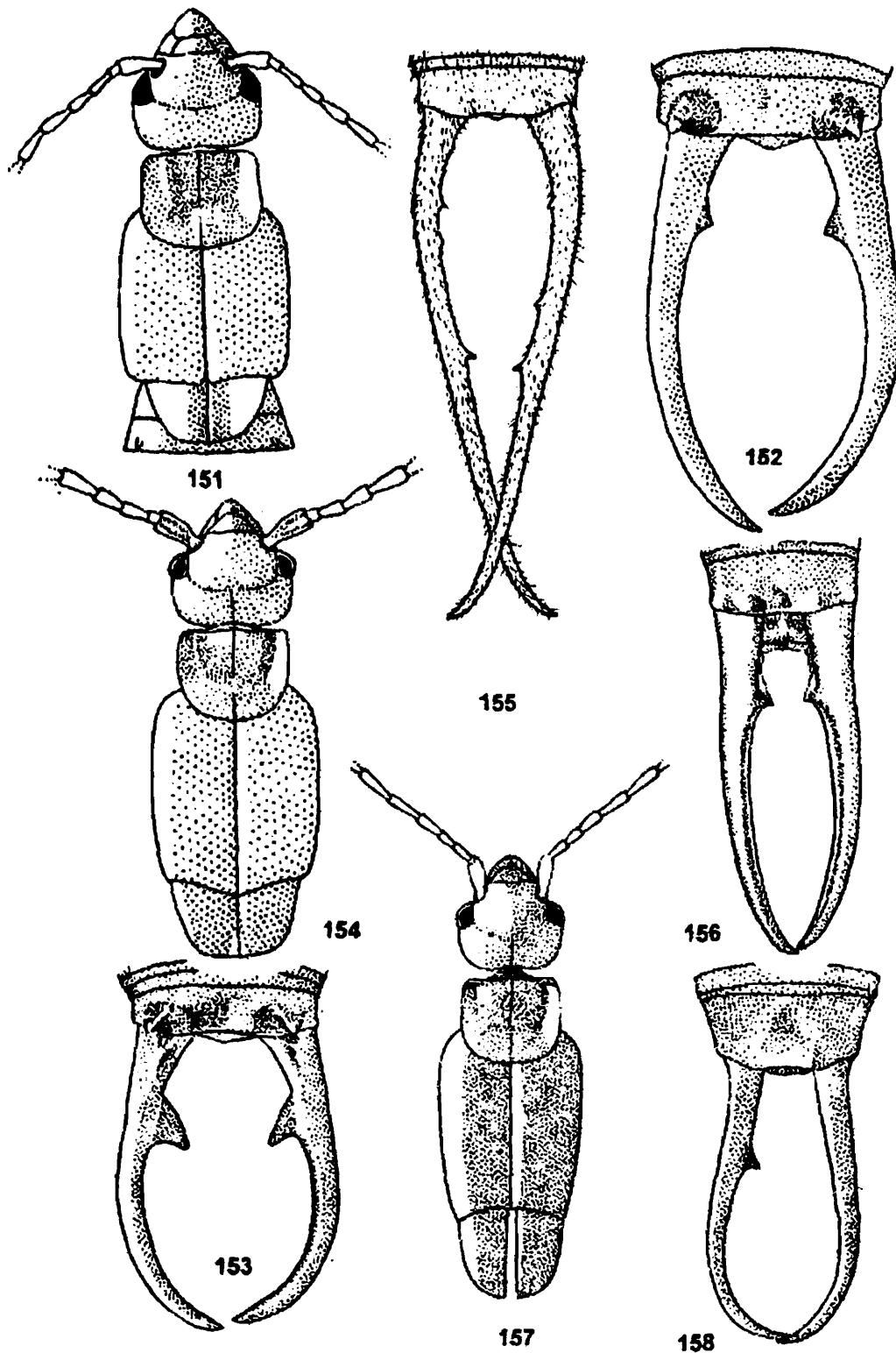
85. *Forficula carinata* Zhang & Yang

Material examined : CHINA : Hupeh, Lichuan Dist., Sui-sa-pa, 1 Male, 5 Females, 27.vii.1948 (*J. L. Gressitt* coll.).

Distribution : China (Hunan Prov).

86. *Forficula berezovskiyi* Bey Bienko (Fig 162)

Material examined : CHINA : W. Hupeh, Lichuan Distr., Suisapa, 1 Male, 1 Female, 1000 m, 28.vii-18.viii.1948; Hupeh, Hsiao-ho, 1 Male, 6 Females, 5-10.viii.1948 (*J. L. Gressitt* coll.); W.Hupeh, Hsiao-ho, 1 Male, 1 Female, 14.viii.19489 (*J. L. Gressitt & W. Djon* coll.).



Figs. 151-158 : *Anechura japonica* (Bormans), Male; 151. Anterior portion of body; 152-153. Ultimate tergite and forceps showing variation in the development of internal tooth of forceps; *Eudohrnia zae* (Liu), Male; 154. Anterior portion of body; 155. Ultimate tergite and forceps; *Pterygida eurypyga* Bey-Bienko, Male; 156. Ultimate tergite and forceps; *Pterygida intermedia* (Borelli), Male; 157. Anterior portion of body; 158. Ultimate tergite and forceps.

Measurements : Male : Length : body – 8.0-11.0 mm, forceps – 4.0-6.0 mm; Female: body – 8.5-10.0 mm, forceps - 3.0-3.5 mm. Female forceps are simple and straight.

Distribution : China (Szechwan and Hupeh).

Remarks : Female is recorded for the first time.

87. *Forficula ornata* Bormans

Material examined : S. CHINA : Kwatung, Tin-wu Shan, W of Canton, 1 Male (genitalia mounted between two coverslips and attached to the pin of specimen), 7-12.vii.1950 (L. A. M. Gressitt coll.). THAILAND (NW), Chingmai, 450 m, 1 Female, 28.iii.1950, (T.C.Maa coll.), Doi Suthep, 1 Female, 14.xi.1957 (J.L.Gressitt coll.).

Distribution : Sumatra (Padang), India (Madras?); Myanmar, Thailand and Sumatra.

88. *Forficula biplaga* Bey-Bienko

Material examined : S. CHINA : Fukien, Shaowu, Tachulan, 2 Males, 2 Females, 8-31.v.1942 & 3-10.vi.1943 (T. C. Maa coll.).

Distribution : China (Yunnan and Fukien).

Remarks : In one male the yellow humeral spot on elytra is absent.

89. *Forficula interrogans* (Burr)

Material examined : CHINA : W. Hupeh, Lichuan Distr., Sui-sa-pa, 1000 m, 1 Male, 2.viii.1948 (J. L. Gressitt coll.).

Measurements : Length : Body – 6.0 mm; forceps - 2.0 mm.

Distribution : India (West Bengal : Darjeeling & Arunachal Pradesh) and China.

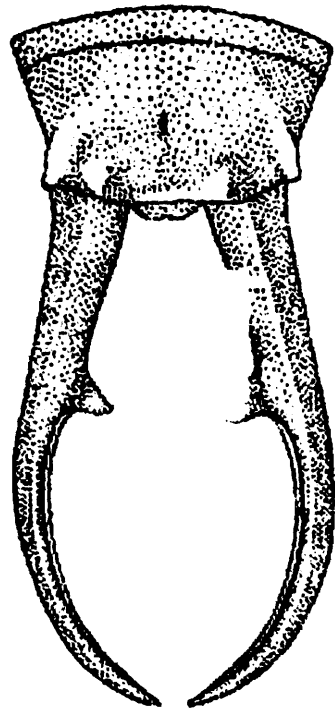
Remarks : General colour is castaneous.

90. *Forficula mandarina* Borelli

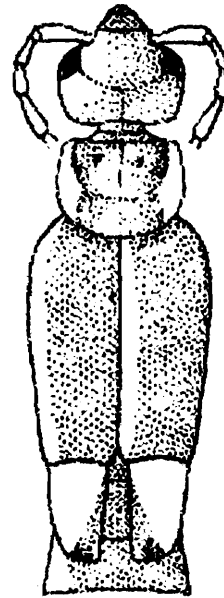
Material examined : China: Fukien, Chungan : Sien-fengling, 1 Male, 1 Female, 27.iv.1942; Sanchiang, 1 Male,...1.v.1943; Tsilichiao, 1000 m 1 Male, 28.iv.1945; Tachulaan, 1000 m, 20 Males, 10 Females, 1943-1945 (T. C. Maa coll.).

Distribution : China : Szechwan and Fujian.

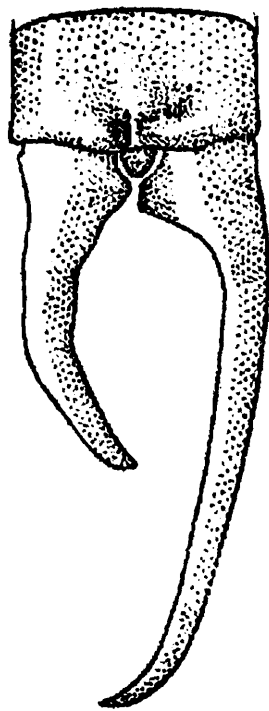
Remarks : In some males forceps are less stout and basal lamellation extends in a little more than basal 1/3 of the length.



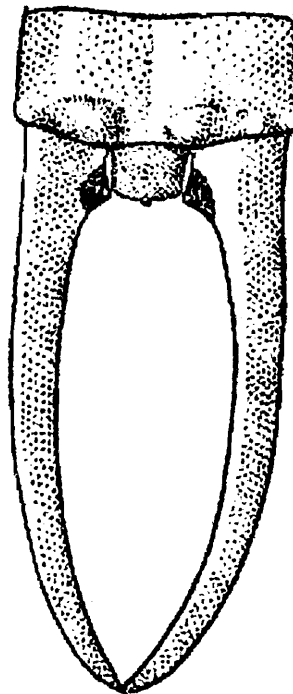
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Figs. 159-162 : *Pterygida annandalei* (Burr), Male; 159. Anterior portion of body; 160. Ultimate tergite and forceps; *Elaunon bipartitus* (Kirby), Male; 161. Ultimate tergite and forceps, with left branch deformed; *Forficula berezoviskyi* Bey-Bienko, Male; 162. Ultimate tergite and forceps.

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