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The Limoniinae (Diptera: Tipulidae) of Australia

III. The genus *Gynoplistia* MACQUART



Gynoplistia (Gynoplistia) chadwicki chadwicki spec. nov., ♂ and ♀ (in copula)
photo B. L. Brunet

The Limoniinae (Diptera: Tipulidae) of Australia

III. The genus *Gynoplistia* MACQUART

G. THEISCHINGER, Engadine

Abstract:

The Australian species of *Gynoplistia* MACQUART, including the subgenera *Cerozodia* MACQUART, *Gynoplistia* MACQUART and *Xenolimmophila* ALEXANDER, are reviewed. *Gynoplistia annulata* MACQUART is designated the type species of *Gynoplistia* MACQUART. Fifty-one taxa of the species group are described as new. Descriptive information on the hitherto undescribed sex is presented for 18 taxa (5 ♂, 13 ♀). Lectotypes are designated for *Gynoplistia apicalis* WALKER, *Gynoplistia bimaculata* SKUSE, *Gynoplistia flavipennis* SKUSE, *Gynoplistes nervosa* WESTWOOD, *Gynoplistia obscurivena* SKUSE and *Gynoplistia westwoodi* SKUSE. There are several changes in taxonomic rank and a number of changes and additions to synonymy. Diagnostic characters and distributional data are presented for all taxa of the species group. *Gynoplistia* s. str. is subdivided into 19 supposedly monophyletic species groups, four of which are, at least in Australia, at this stage monotypic.

Introduction

Only recently (EVENHUIS 1990) it was established that the genus (and subgenus) *Gynoplistia* and two of its species (*annulata* and *cyanea*) and the subgenus *Cerozodia* and its Australian species *interrupta* have to be credited to MACQUART (1835) and not to WESTWOOD (1835).

Gynoplistia MACQUART, including the subgenera *Cerozodia* MACQUART, *Gynoplistia* MACQUART and *Xenolimnophila* ALEXANDER, is one of the largest genera of the Australian Limoniinae. 74 of the taxa of the species group, described by ALEXANDER (1921, 1922a, 1922b, 1922c, 1923a, 1923b, 1924, 1926, 1928, 1929, 1930, 1931, 1934, 1951), BIGOT (1854), MACQUART (1835, 1850), SCHINER (1868), SKUSE (1890), WALKER (1835, 1856) and WESTWOOD (1835a, 1835b), were considered as valid by OOSTERBROEK (1989). However, the available descriptive literature as cited above does not provide workable means for specific identifications. Many species were described from unique specimens, and only the wings and the male genitalia of a few species were illustrated, the genitalia with insufficient detail.

Almost all available types of Australian *Gynoplistia* were studied for this paper and, in conjunction with large numbers of fresh specimens, were used for interpretation and identification. These, together with the descriptions of many new forms and much additional, mainly distributional, information, are presented below. *Cerozodia minuscula* ALEXANDER, listed under *Gynoplistia* s. str. by OOSTERBROEK (1989), was found to belong in *Paralimnophila* ALEXANDER (*Paralimnophila minuscula* (ALEXANDER), comb. nov.).

Descriptive terminology

The formula used for the description of the antennae contains the following information: number of segments making up the antennal base (scapus and pedicellus = always 2) + number of basal flagellomeres bearing flabella not aligned with the more distal flabella + number of flagellomeres bearing flabella not aligned with the basal flabella + number of flagellomeres

without flabella.

The terminology used for the male genitalia is presented and pointed out by a labelled illustration under each supraspecific taxon (see there). It should, however, be mentioned that the homologies of some hypopygial structures are not well understood. There is much inconsistency in terms used throughout the available specific and more general papers on Tipulidae. In this paper, outer and inner gonostylus are identified by their position in the specimens studied, and the paired sclerotized structures between the base of the gonocoxites are usually called lateral elements of the aedeagal complex, irrespective of their origin.

Methods

Much as pointed out in the introductory paper to this series (THEISCHINGER 1992).

In order to optimally display diagnostic hypopygial characters, the members of some groups had to be illustrated in dorsal aspect, of others in ventral aspect. A verbal diagnosis is given not only for species described as new in this paper but also for all sufficiently known previously described taxa of the species group.

Identification

Generally as pointed out in the introductory paper to this series (THEISCHINGER 1992).

For keying out subgenera and species groups, it should be noted that the members of some of these units were illustrated in dorsal, of others in ventral aspect. However, members of the same species group are always presented in the same aspect.

Acknowledgements

For kind support of the present study in many different ways I wish to thank the following persons: Mr D.J. Scambler (Ballina), Mr G. Daniels, Dr G.B. Monteith and Miss M. Schneider (Brisbane), Ms E. Bugledich, Dr D.H. Colless, Dr P.S. Cranston and Dr E. Nielsen (Canberra), Dr A. Wells (Darwin); Mr G. Williams (Lansdowne); Dr A. Neboiss and

Mr K. Walker (Melbourne); Dr T. Houston (Perth), Dr D.J. Bickel, Mr B.L. Brunet, Mr C.E. Chadwick, Mr B. Day, Mr G. Holloway, Dr D.K. McAlpine, Mr M.S. Moulds and Mr L. Müller (Sydney); Mag. F. Gusenleitner and Dr F. Speta (Linz, Austria), Dr R. Contreras-Lichtenberg and Dr W. Seipel (Wien, Austria), Dr J. Chainey (London, England), Dr I. Lansbury (Oxford, England), Dr Loic Matile (Paris, France), Dr P. Oosterbroek (Amsterdam, Netherlands), Dr N.L. Evenhuis (Honolulu, U.S.A.), Mr G.F. Hevel, Dr W.N. Mathis and Miss H. Williams (Washington D.C., U.S.A.). I also wish to acknowledge a Visitor's Fellowship awarded by the Smithsonian Institution, Washington D.C., U.S.A., and enabling me to study the world famous Alexander Collection, and last but not least I am extremely grateful to Dr O.S. and Mrs C. Flint for accommodation so kindly provided in Washington D.C.

Abbreviations

Apart from abbreviations in common use, and abbreviations for taxonomic terms and geographical regions of Australia, both listed in the introductory paper to this series (THEISCHINGER 1992), the following abbreviations are used:

a) for authors:

ALEX.	= ALEXANDER
MACQ.	= MACQUART
SCHL.	= SCHINER
WALK.	= WALKER
WEST.	= WESTWOOD

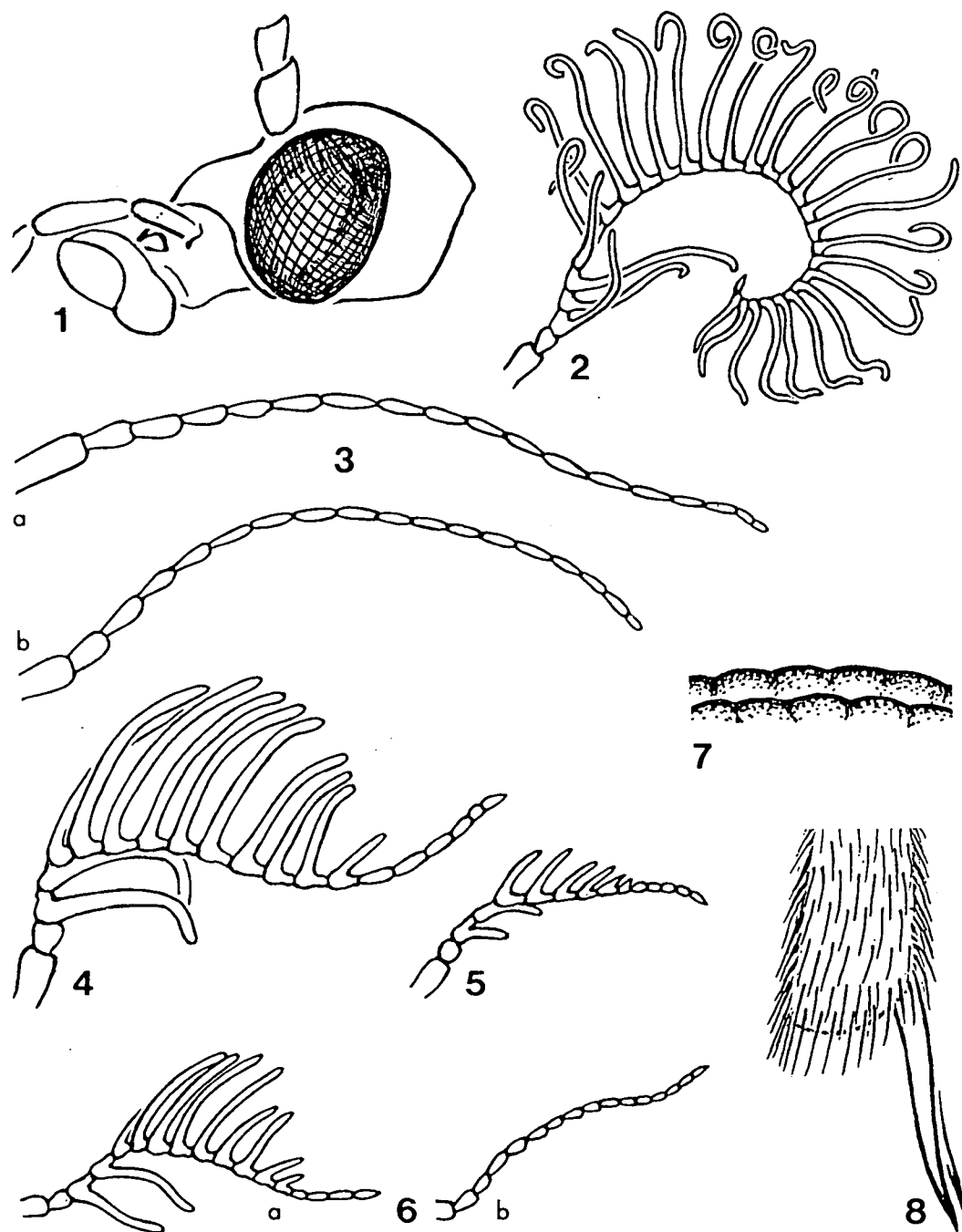
b) for institutions and collections:

AM	= Australian Museum, Sydney
ANIC	= Australian National Insect Collection, Canberra
BMNH	= Natural History Museum, London, England
BPBM	= Bishop Museum, Honolulu, U.S.A.
GT	= Collection Günther Theischinger
HOPE	= Hope Entomological Collections, University of Oxford, Oxford, England
MNP	= Museum National d'Histoire Naturelle, Paris, France
MV	= Museum of Victoria, Melbourne

NHMW	= Naturhistorisches Museum, Wien, Austria
NMNH	= National Museum of Natural History, Washington D.C., U.S.A.
QM	= Queensland Museum, Brisbane
SAM	= South Australian Museum, Adelaide
UQ	= University of Queensland, Brisbane
WAM	= Western Australian Museum, Perth

c) others:

ca.	= circa
Ck	= Creek
Dist.	= District
ft	= feet
jn	= junction
km	= kilometer(s)
mi.	= mile(s)
Mt	= Mount
Mtn	= Mountain
Mts	= Mountains
N. P.	= National Park
nr	= near
R	= River
Ra.	= Range(s)
Rd	= Road
S. F.	= State Forest
Stn	= Station
trib.	= tributary.



Figs 1-8. Characters of *Gynoplistia* species: 1, head of *G. (Gynoplistia) bella* (WALK.), lateral aspect; - 2, antenna of *G. (Cerozodia) interrupta* (MACQ.) ♂; - 3, antennae of *G. (Xenolimnophila)*: a, *G. (X.) paketye* sp. n. ♂ - b, *G. (X.) fergusonii* (ALEX.) ♀; - 4-6, antennae of *G. (Gynoplistia)*: 4, *G. melanopyga* SCHI. ♂ - 5, *G. apicalis* WALK. ♀; - 6, *G. yarra* sp. n.: a, ♂ - b, ♀; - 7, portion of eye, in profile, of *G. (G.) bella* (WALK.); - 8, part of mesotibia of *G. (G.) bella* (WALK.).

Systematics

Genus *Gynoplistia* MACQUART (Figs 1-160)

Gynoplistia MACQUART, Hist. nat. Ins. Dipt. II (Paris): 649 (1835).

Type species: *Gynoplistia annulata* MACQUART 1835, by present designation.

For complete synonymy see below, under the three subgenera *Cerzodia* MACQUART, *Gynoplistia* MACQUART and *Xenolimmophila* ALEXANDER.

Definition. *Gynoplistia* MACQUART is a genus of the tribe Hexatomini (subfamily Limoniinae, family Tipulidae). The combination of the following characters is considered diagnostic for *Gynoplistia* in Australia: Rostrum markedly shorter than remainder of head (Fig. 1); antennae with more than 11 flagellomeres (Figs 2-6); eyes glabrous (Fig. 7). Tibial spurs present (Fig. 8). Cell C without supernumerary crossveins; Sc1 absent or much shorter than Rs; Sc ending distal of origin of Rs; four branches of R reaching the wing margin; no X-shaped vein crossing formed by R1, R1+2 and R3; R2 present; R2+3+4 markedly shorter than R4, mostly shorter than basal section of R5; vein r-m present; bscu some distance from distal side of dm (all Figs 9-11, 33, 35, 55).

Habitat of larvae. ALEXANDER (1931) regards *Gynoplistia* almost terra incognita for any worker on the biology of crane flies, but he considers a number of habitats as probably suitable for *Gynoplistia*. They are: a) in or beneath wet to saturated mats or cushions of mosses and liverworts, growing on earth or rocks, generally near streams; b) sandy, gravelly, or loamy soil, with slight humus, at margin of streams or ponds; c) rich organic earth or mud, as at margins of rills, streams, lakes, or other bodies of water; in swamps or marshes; in leaf-mold or drift at stream-margins; wet spots in woods; d) beneath leaf-mold in rich, moist to saturated humus soil in woods; e) in wet to saturated decaying wood; in fermenting sap beneath bark. ALEXANDER considers sphagnum and other aquatic mosses a habitat possibly chosen by certain alpine species of the Australian crane fly fauna without men-

tioning any particular genera. From my own and other recent workers' collecting of adult crane flies, however, it appears to me that sphagnum and alpine bogs and swamps are the larval habitats, particularly of many *Gynoplistia* s. str. species.

Distribution. Australia (northern, eastern and south-western), New Zealand, New Caledonia, New Guinea, Celebes, Argentina, Chile.

The subgenera of *Gynoplistia* MACQUART in Australia:

Cerzodia MACQUART

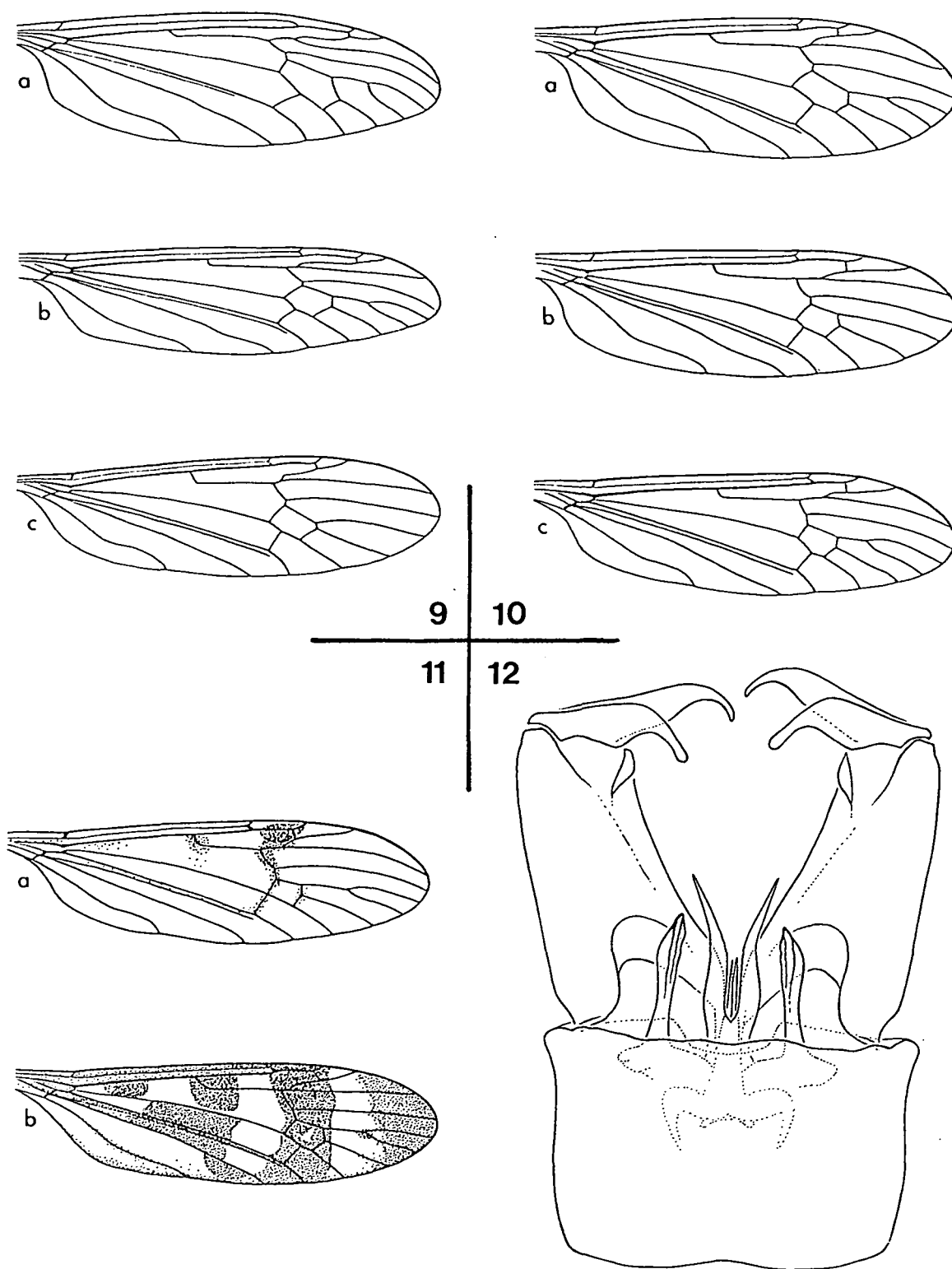
Gynoplistia MACQUART

Xenolimmophila ALEXANDER

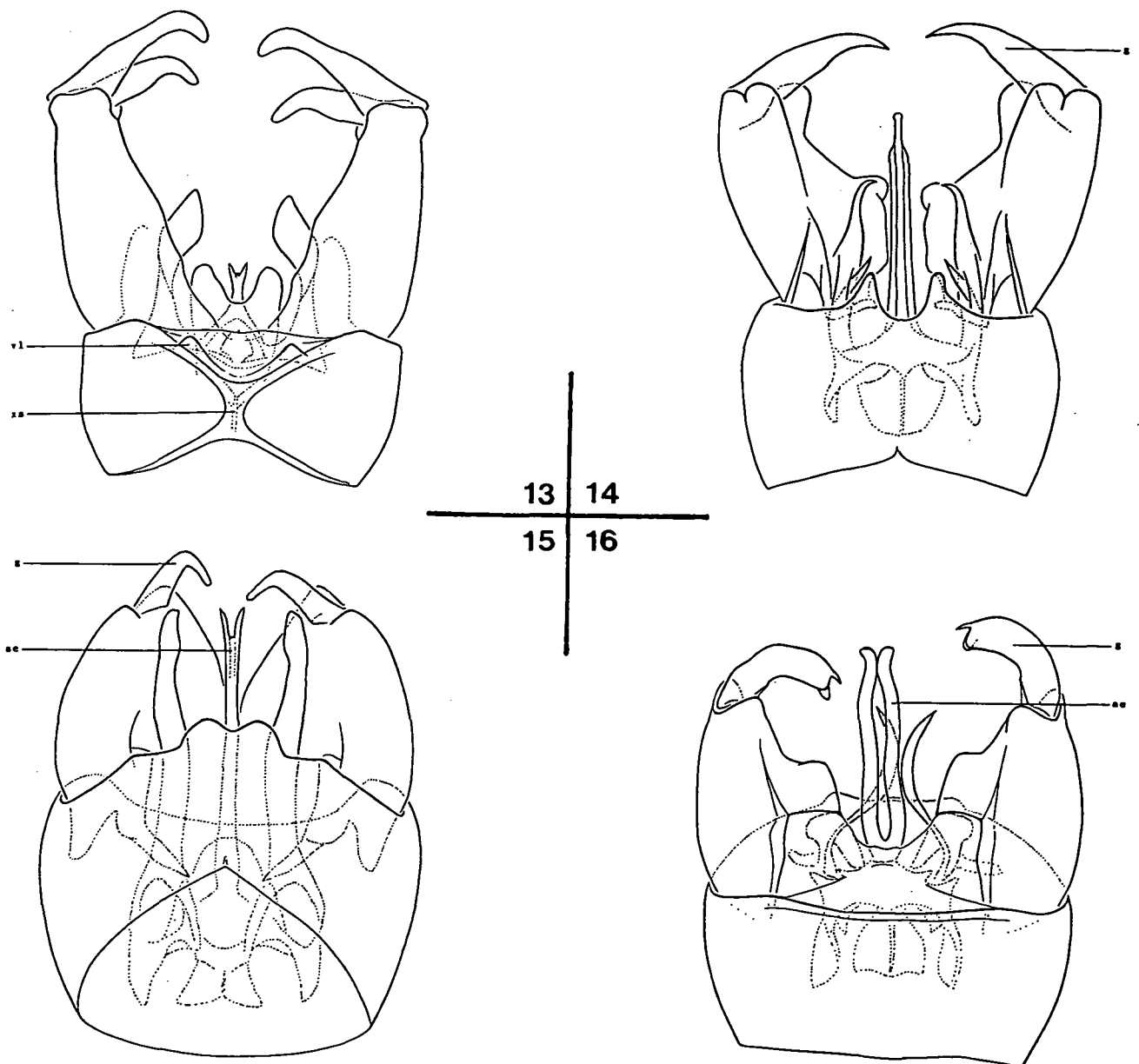
Key to the subgenera and species groups of Australian *Gynoplistia* as recognized in this paper (works for males only; females can only be identified to the level of subgenus)

1. Antennae with more than 30 segments (Fig. 2); Sc ending in R (Sc1 absent) (Fig. 9a); male hypopygium as in Fig. 12 *Cerzodia*
- Antennae with fewer than 25 segments (Figs 3-6); Sc ending in C (Sc1 present) (Figs 9b, 9c, 10a-c); male hypopygium as in Figs 14-32 2
- 2 (1). Antennae never flabellate (Figs 3a, 3b); body length of females at least 15 mm; male hypopygium as in Fig. 13: segment 9 ventrally with small posterior lobes (vl) and with strongly sclerotized X-shaped inner support (xs) along midline *Xenolimmophila*
- Antennae generally flabellate (Figs 4, 5, 6a); if antennae not flabellate (females of a few species (Fig. 6b) or ventrally protuberant, body shorter than 14 mm; male hypopygium: segment 9 ventrally without strongly sclerotized X-shaped support along midline *Gynoplistia*, 3
- 3 (2). Only one pair of gonostyli (g) (Figs 14-22) 4
- Two pairs of gonostyli (ig, og) (Figs 23-32) 12
- 4 (3). Cell M1 absent (Fig. 9c) *G. distinctissima* group

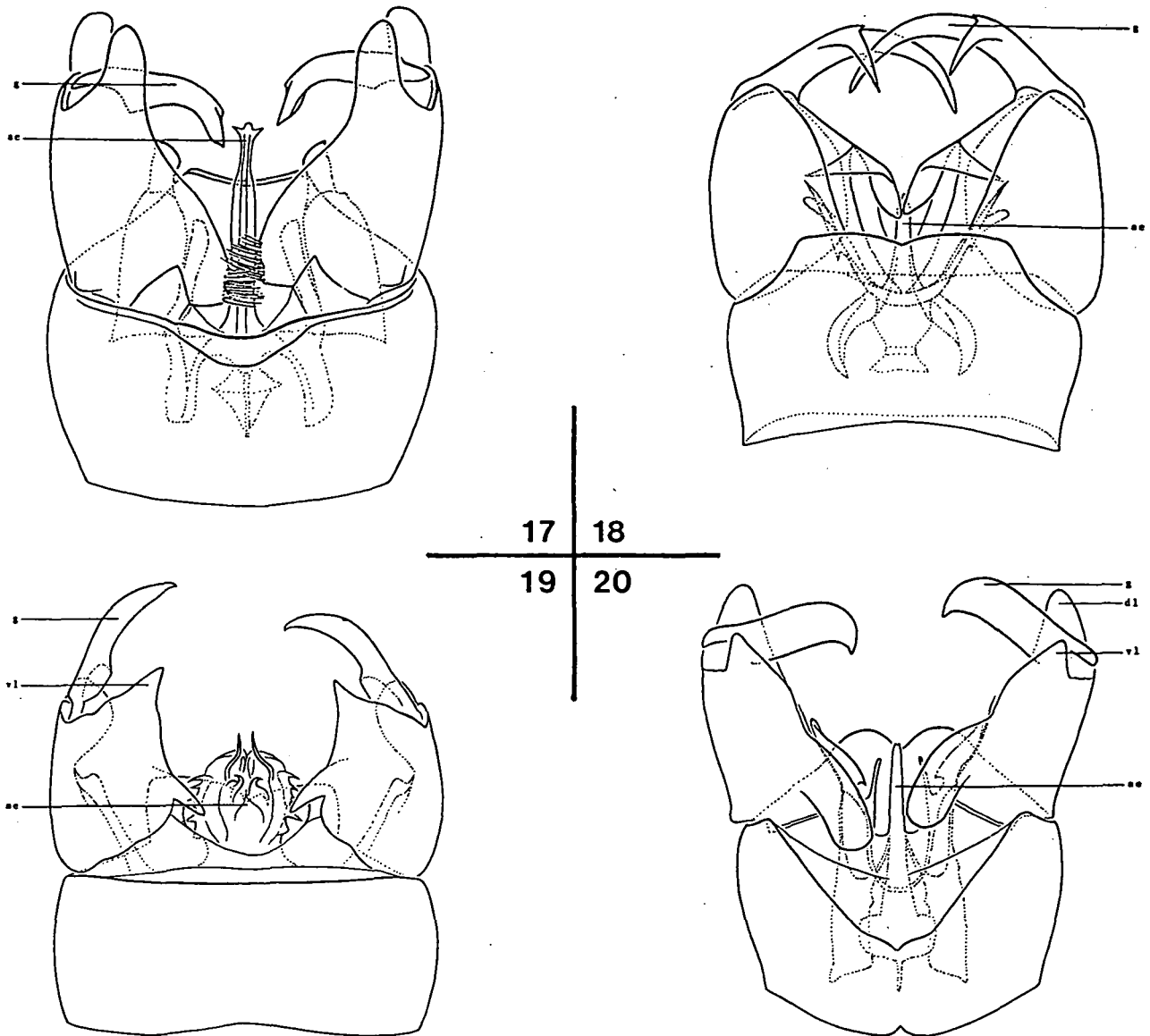
- Cell M1 present (e.g. Fig. 10a) 5
- 5 (4). Aedeagus (ae) bifid (Figs 15, 16) 6
- Aedeagus (ae) not bifid (Figs 17-22) 7
- 6 (5). Only tip of aedeagus (ae) bifid (Fig. 15) *G. hotooworry* group
- Aedeagus (ae) profoundly bifid, drawn out into two long rods (Fig. 16) *G. melanopyga* group
- 7 (5). Gonostyli (g) apically expanded, flipper-shaped; aedeagus (ae) trifold (Fig. 17) *G. fumipennis* group
- Gonostyli (g) apically not expanded; aedeagus (ae) never trifold (Figs 18-22) ... 8
- 8 (7). Gonostyli (g) bifurcate (Fig. 18) *G. alice* group
- Gonostyli (g) simple (Figs 19-22) 9
- 9 (8). Ventral lobe of gonocoxite (vl) drawn out into a posteromedially directed point or angle (Fig. 19) *G. bella* group
- Ventral lobe (vl) of gonocoxite not drawn out into a posteromedially directed point or angle (Figs 20-22) 10
- 10 (9). Dorsal lobe (dl) of gonocoxite much larger than ventral lobe (vl) (Fig. 20) *G. yonguldye* group
- Dorsal (dl) and ventral lobe (vl) of gonocoxite subequal in length (Figs 21, 22) 11
- 11 (10). Aedeagal complex with three elements (lae) (possibly including interbase) each side of the arrow-headed aedeagus (ae) (Fig. 21) *G. aurantiocincta* group
- Aedeagal complex with only two elements (lae) each side of the simple slender aedeagus (ae) (Fig. 22) .. *G. viridis* group
- 12 (3). Cell M1 absent (e.g. Fig. 10b) 13
- Cell M1 present (e.g. Fig. 10c) 14
- 13 (12). Gonocoxite (ge) posteromedially lobed or widened (Fig. 23) *G. leai* group
- Gonocoxite (ge) posteromedially not lobed or widened (Fig. 24) *G. zebrata* group
- 14 (12). Segment 9 (s9) middorsally divided (Fig. 25) *G. annulata* group
- Segment 9 (s9) undivided (Figs 26-32) .. 15
- 15 (14). Ventral lobe (vl) of gonocoxite medially directed, spine-like or pointed (Fig. 26) . *G. vilis* group
- Ventral lobe (vl) of gonocoxite not medially directed, spine-like or pointed (Figs 27-32) 16
- 16 (15). Segment 9 (s9) ventrally with deep narrow posteromedial excision (ve); at least one pair of gonostyli (ig, og) bifid (Fig. 27) *G. forceps* group
- Segment 9 (s9) ventrally not deeply and narrowly excised; both pairs of gonostyli (ig, og) simple (Figs 28-32) 17
- 17 (16). Gonostyli (ig, og) subequal in length (Figs 28, 29) 18
- Inner gonostylus (ig) markedly longer than outer gonostylus (og) (Figs 30-32) 19
- 18 (17). Wing pattern light and restricted (Fig. 11a); dorsal lobe (dl) of gonocoxite prominent (Fig. 28) *G. heroni* group
- Wing pattern heavy and extensive (Fig. 11b); dorsal lobe (dl) of gonocoxite not prominent (Fig. 29) *G. tenuifilosa* group
- 19 (17). Gonocoxite (ge) with rounded hairy mediobasal lobe (ml); inner gonostylus strongly bowed (Fig. 30) *G. exornata* group
- Gonocoxite (ge) without rounded hairy mediobasal lobe; inner gonostylus rather evenly curved (Figs 31, 32) 20
- 20 (19). Outer gonostylus (og) rather long, strongly curved, horn-like (Fig. 31) *G. kaoota* group
- Outer gonostylus (og) short or of moderate length, rather straight, sausage-, leaf- or blade-shaped (Fig. 32) *G. viridithorax* group



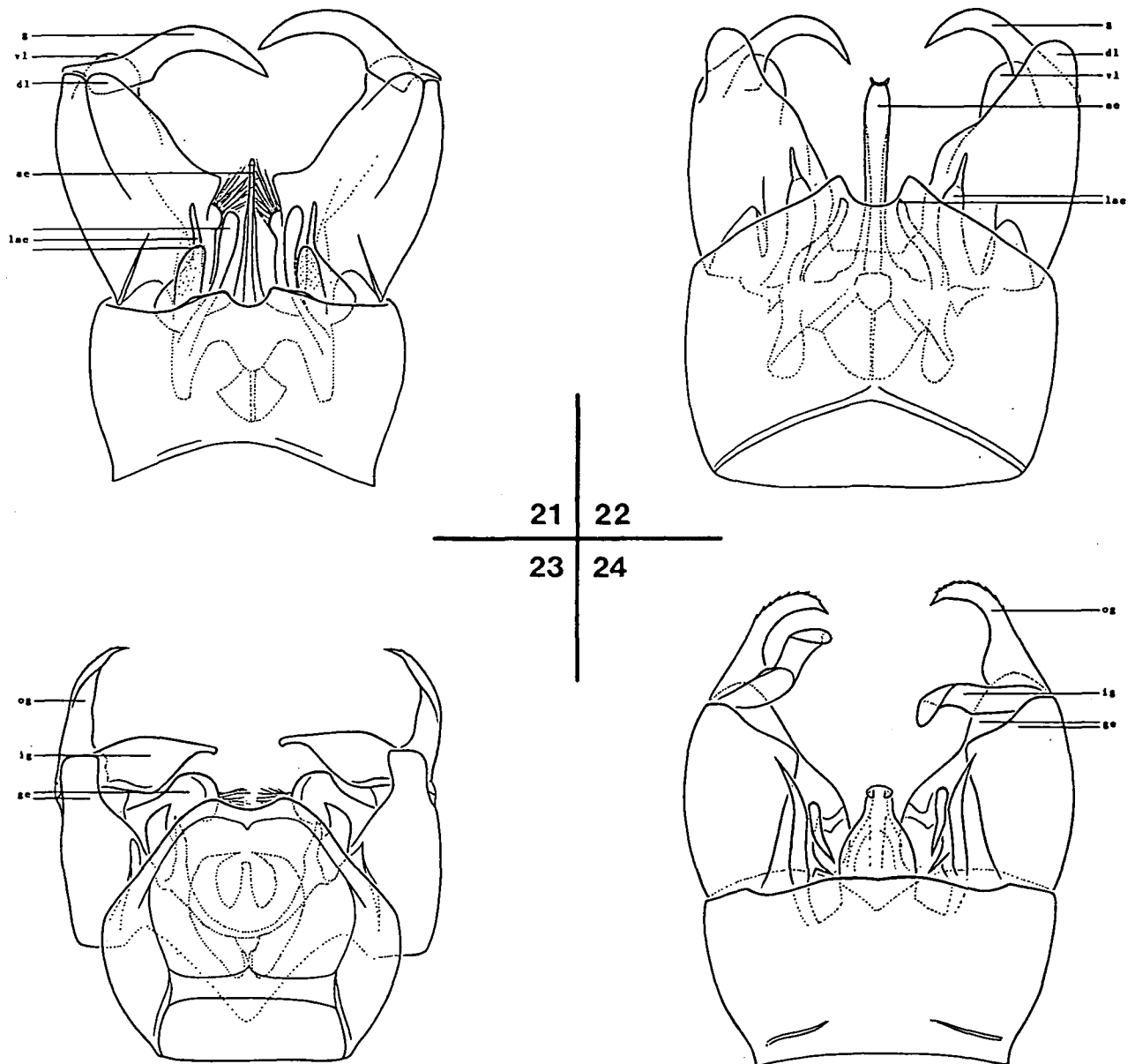
Figs 9, 10. Wing venation of *Gynoplistia* species: 9a, *G. (Cerozodia) interrupta* (MACQ.); - 9b, *G. (Xenolimnophila) fergusonii* (ALEX.); - 9c, *G. (Gynoplistia) distinctissima* ALEX.; - 10a, *G. (G.) bimaculata* SKUSE; - 10b, *G. (G.) leai* ALEX.; - 10c, *G. (G.) vilis* WALK. Fig. 11. Wing pattern of *Gynoplistia (Gynoplistia)* species: a, *heroni* ALEX.; - b, *G. persephoneia* sp. n. Fig. 12. Male hypopygium of *G. (Cerozodia) interrupta* (MACQ.), dorsal aspect.



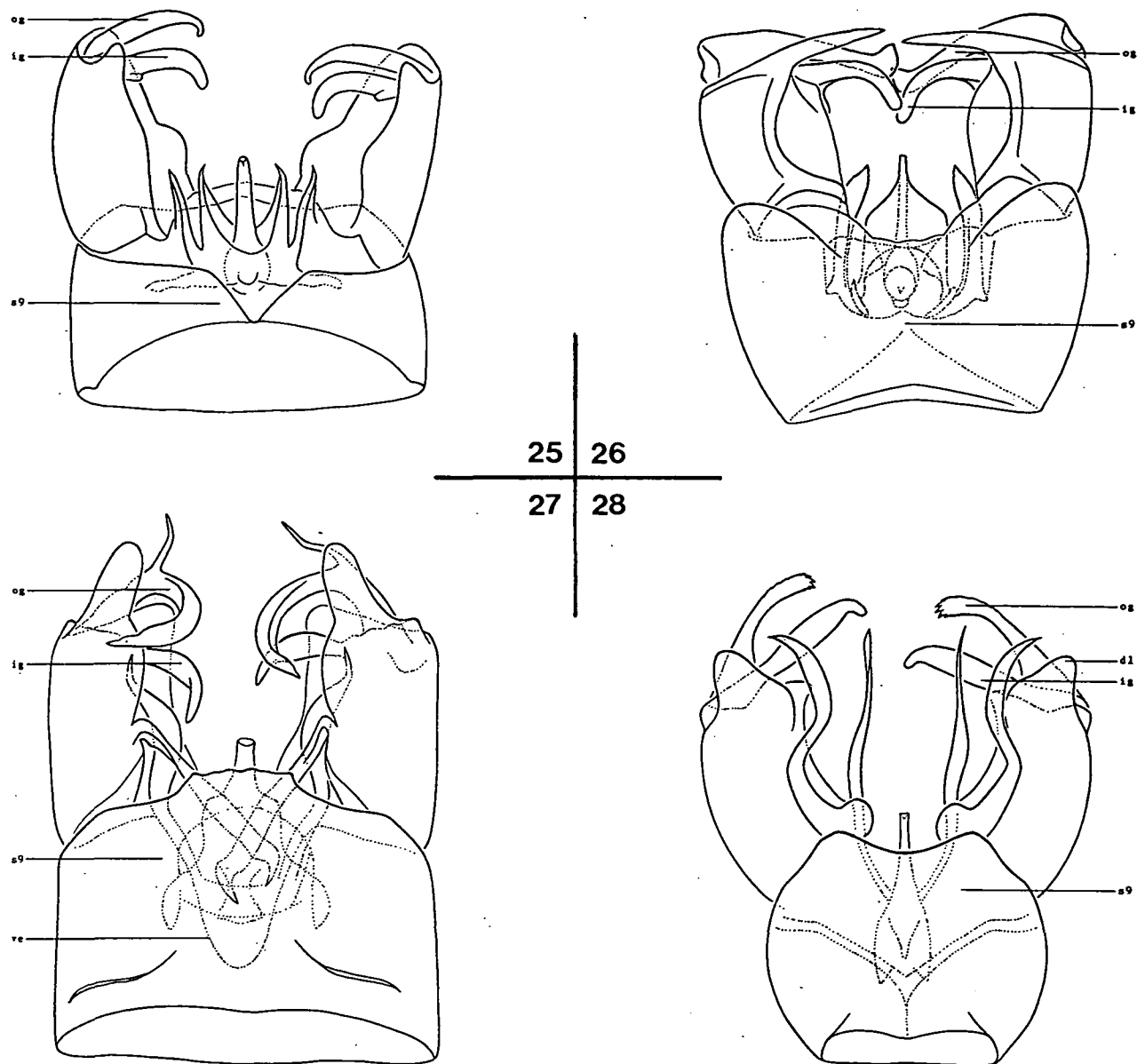
Figs 13-16. Male hypopygium of Australian *Gynoplistia* species representing the subgenera and species groups as recognized in this paper: - 13, *G. (Xenolimnophila) paketye* sp. n., ventral aspect; - 14, *G. (Gynoplistia) distinctissima* ALEX. (= *distinctissima* group), dorsal aspect; - 15, *G. (G.) hotooworry* (= *hotooworry* group), dorsal aspect; - 16, *G. (G.) opima* ALEX. (= *melanopyga* group), ventral aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; g = gonostylus; s9 = segment 9; vl = ventral lobe of gonocoxite.



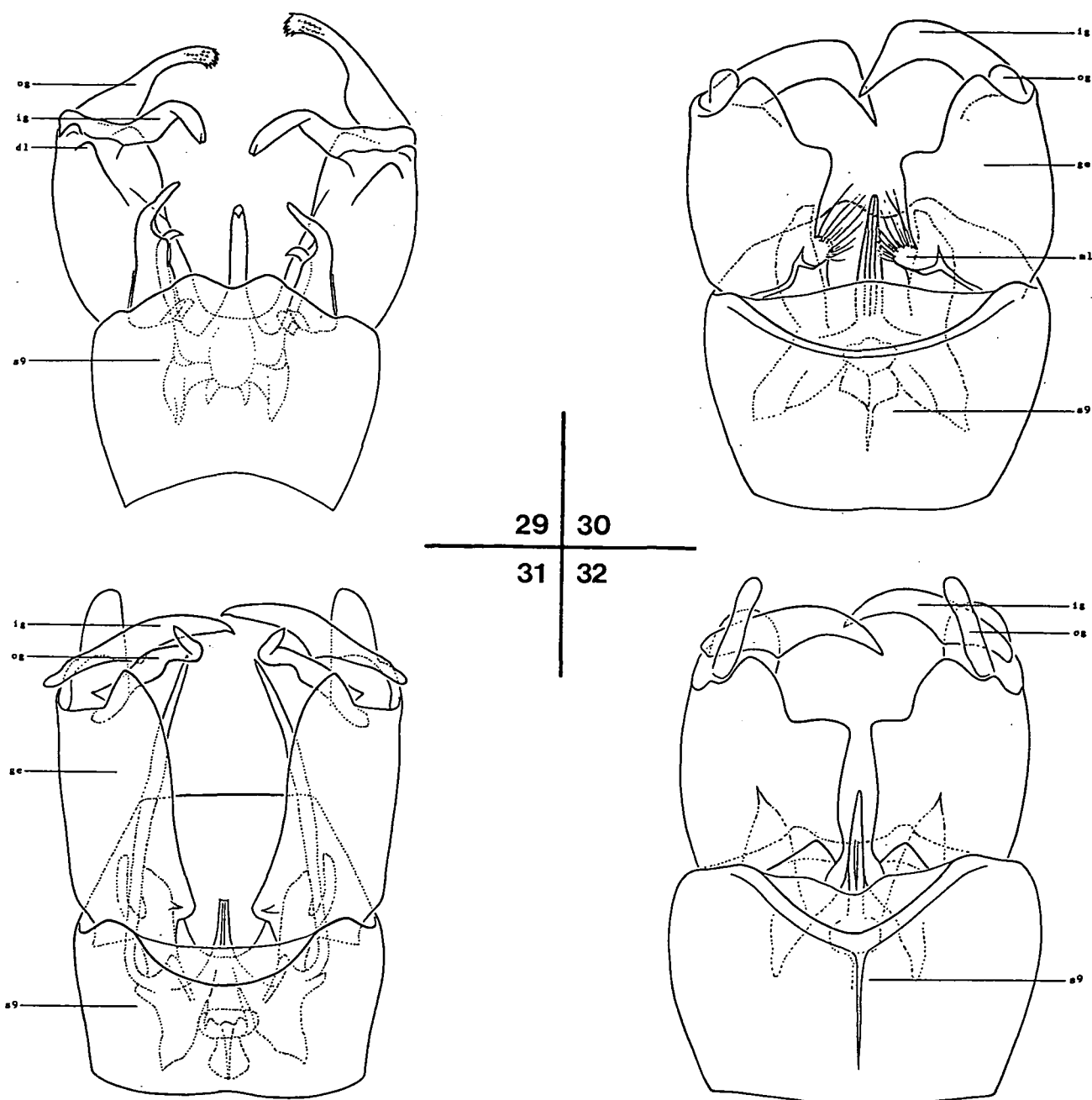
Figs 17-20. Male hypopygium of Australian *Gynoplistia* (*Gynoplistia*) species representing the species groups as recognized in this paper: 17, *G. fumipennis* WALK. (= *fumipennis* group), dorsal aspect; - 18, *G. alice* sp. n. (= *alice* group), dorsal aspect; - 19, *G. bella* (WALK.) (= *bella* group), ventral aspect; - 20, *G. yonguldye* sp. n. (= *yonguldye* group), ventral aspect.



Figs 21-24. Male hypopygium of Australian *Gynoplistia* (*Gynoplistia*) species representing the species groups as recognized in this paper: - 21, *G. umbacoora* sp. n. (= *aurantiocincta* group), dorsal aspect; - 22, *G. ofarrelli* sp. n. (= *viridis* group), dorsal aspect; - 23, *G. krangalang* sp. n. (= *leai* group), dorsal aspect; - 24, *G. tooronga* sp. n. (= *zebrata* group), dorsal aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; ge = gonocoxite; ig = inner gonostylus; lae = lateral elements of aedeagal complex (possibly including interbase); og = outer gonostylus; s9 = segment 9; vl = ventral lobe of gonocoxite.



Figs 25-28. Male hypopygium of Australian *Gynoplistia* (*Gynoplistia*) species representing the species groups as recognized in this paper: 25, *G. annulata* MACQ. (= *annulata* group), dorsal aspect; - 26, *G. babinda* sp. n. (= *vilis* group), ventral aspect; - 27, *G. erinundra* sp. n. (= *forceps* group), dorsal aspect; - 28, *G. paluma* sp. n. (= *heroni* group), dorsal aspect.



Figs 29-32. Male hypopygium of Australian *Gynoplistia* (*Gynoplistia*) species representing the species groups as recognized in this paper: 29, *G. persephoneia* sp. n. (= *tenuifilosa* group); dorsal aspect; - 30, *G. kua* sp. n. (= *exornata* group), ventral aspect; - 31, *G. kaoota* sp. n. (= *kaoota* group), ventral aspect; - 32, *G. poenghana* sp. n. (= *viridithorax* group), ventral aspect. Abbreviations: dl = dorsal lobe of gonocoxite; ge = gonocoxite; ig = inner gonostylus; og = outer gonostylus; s9 = segment 9; vl = ventral lobe of gonocoxite.

Subgenus *Cerozodia* MACQUART (Figs 2, 9a, 12, 33, 34, 57)

Cerozodia MACQUART, Hist. nat. Ins. Dipt 2: 650 (1835).
Ozocera MACQUART, Hist. nat. Ins. Dipt 2: 650 (1835).
Unavailable name; genus-group name proposed in synonymy, not made available before 1961.

Cerozodia WESTWOOD, Lond. Edinb. Phil. Mag. (Ser. 3) 6: 281 (1835); as genus.

Ozocera WESTWOOD, Zool. J. Lond. 5: 449 (1835); as genus.

Type species of *Cerozodia* MACQUART:
Cerozodia interrupta MACQUART 1835, by monotypy.

Type species of *Cerozodia* WESTWOOD:
Cerozodia interrupta WESTWOOD 1835, by monotypy (preoccupied by MACQUART 1835).

Type species of *Ozocera* WESTWOOD: *Cerozodia interrupta* WESTWOOD 1835, by monotypy.

Definition. Antennae flabellate, with more than 30 segments; flabella of 3-4 basal flagellar segments not aligned with the more distal flabella (Fig. 2). Wings (Figs 9a, 33) with Sc ending in R (Sc1 absent). Male genitalia as in Fig. 34.

Distribution. Australia (south-western), New Zealand.

Only one Australian species:

G. interrupta (MACQ.)

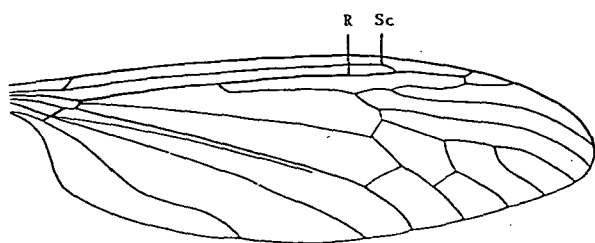


Fig. 33. *Gynoplistia (Cerozodia) interrupta* (MACQUART), wing venation.

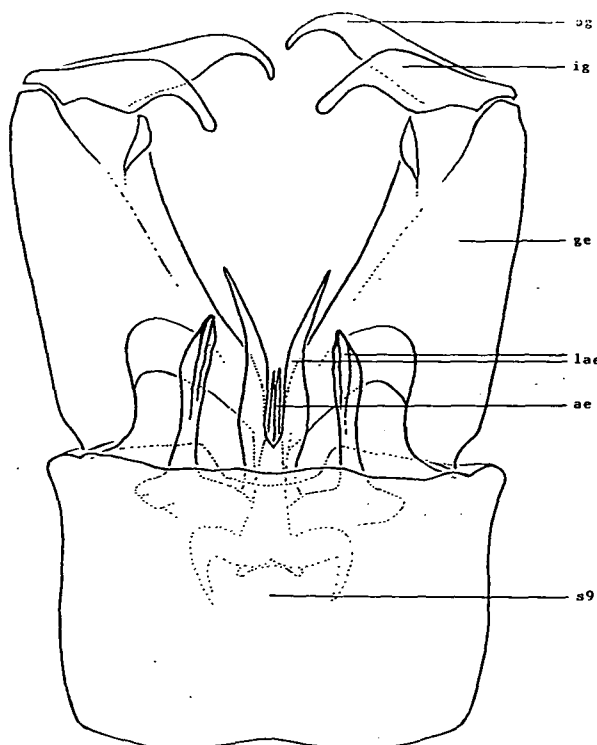


Fig. 34. *Gynoplistia (Cerozodia) interrupta* (MACQUART), male hypopygium, dorsal aspect.
Abbreviations: ae = aedeagus; ge = gonocoxite; ig = inner gonostylus; lae = lateral elements of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Cerozodia) interrupta (MACQUART) (Figs 2, 9a, 12, 33, 34, 57)

Cerozodia interrupta MACQUART, Hist. nat. Ins. Dipt. 2: 650 (1835).

Cerozodia interrupta WESTWOOD, Lond. Edinb. Phil. Mag. (Ser. 3) 6: 281 (1835).

Primary type. Holotype ♂ : Western Australia, Swan River (Labelled S. R.) (Hope); seen.

Published records. Western Australia: Swan River (WESTWOOD 1835: 281).

Previous illustrations. WESTWOOD 1835: Pl. XXII, Fig. 5 (antenna).

Known only from male.

Genitalia. Hypopygium, Figs 12, 34, 57.

Remarks. Not similar to any other described Australian species. For diagnostic characters see above, under *Cerozodia*.

New records. Western Australia: 13 mi. WSW of Collie (ANIC); 16 mi. SE of Donnybrook (ANIC); Forest Grove (WAM); 33°51'S/115°01'E, 4 km NE by E of Gracetown (ANIC); 5 mi. N of Nannup (ANIC); Perup R., 1 mi. N of jn with

Warren R. (WAM); Youngs (WAM).

Distribution. Western Australia (SWA).

Subgenus *Gynoplistia* MACQUART (Figs 1, 4-8, 9c, 10, 11, 14-32, 35-54, 58-154)

Gynoplistia MACQUART, Hist. nat. Ins. Dipt. II (Paris): 649 (1835).

Anoplistes MACQUART, Hist. nat. Ins. Dipt. II (Paris): 649 (1835). Unavailable name, genus group name proposed in synonymy; not made available before 1961.

Gynoplistia WESTWOOD, Lond. Edinb. Phil. Mag. (Ser. 3), 6: 280 (1835); as genus.

Anoplistes WESTWOOD, Lond. Edinb. Phil. Mag. (Ser. 3), 6: 280 (1835); as genus. Nomen nudum. (Preoccupied by AUDINET-SERVILLE, 1833).

Gynoplistes WESTWOOD, Zool. J. Lond. 5: 447 (1835); as genus.

Variegata BIGOT, Annls Soc. ent. Fr. (3) 2: 456 (1854); as genus.

Variptera. Incorr. orig. spell. of *Variegata* (BIGOT, 1854: 471).

Cloniophora SCHINER, Verh. zool.-bot. Ges. Wien 16: 932 (1866); as genus.

Caenarthria THOMSON, K. Svenska Vetenskaps-Akademien, Kongliga Svenska fregatten Eugénies resa omkring jordan (q. v.). Part 2: Zoologie, (Sec.) 1: Insekter (Stockholm): 445 (1869); as genus.

Gymnolistia, error for *Gynoplistia*.

Type species of *Gynoplistia* MACQUART: *Gynoplistia annulata* MACQUART 1835, by present designation.

Type species of *Gynoplistia* WESTWOOD: *Gynoplistia nervosa* WESTWOOD 1835 (= *Ctenophora vilis* WALKER 1835), des. BRUNETTI, 1918: 332. (Preoccupied by MACQUART, 1835).

Type species of *Gynoplistes* WESTWOOD: *Gynoplistes nervosa* WESTWOOD 1835 (= *Ctenophora vilis* WALKER 1835), designation by OOSTERBROEK, 1989: 87.

Type species of *Variegata* BIGOT: *Variegata gymnoplistioides* BIGOT 1854 (= *Ctenophora bella* WALKER 1835), by monotypy.

Type species of *Cloniophora* SCHINER: *Gynoplistia subfasciata* WALKER 1848, by monotypy.

Type species of *Caenarthria* THOMSON: *Gynoplistia viridis* WESTWOOD 1835, by monotypy.

Definition. Antennae generally flabellate, only in the females of several small (body shorter than 12 mm) species simple; flabella of basal two or three flagellar segments not aligned with more distal flabella (Figs 4-6). Wings (Figs 9c-10, 35) with Sc ending in C (Sc1 present). Male hypopygium: segment 9 ventrally not strongly supported (Figs 14-32).

Distribution. Australia (northern, eastern and south-western), New Zealand, New Caledonia, New Guinea, Celebes, Argentina, Chile.

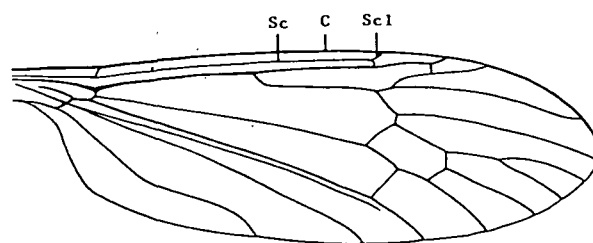


Fig. 35. *Gynoplistia* (*Gynoplistia*) *bimaculata* SKUSE, wing

The species groups of *Gynoplistia* (*Gynoplistia*) in Australia:

- G. alice* group
- G. annulata* group
- G. aurantiocincta* group
- G. bella* group
- G. distinctissima* group
- G. exornata* group
- G. forceps* group
- G. fumipennis* group
- G. heroni* group
- G. hotooworry* group
- G. kaoota* group
- G. leai* group
- G. melanopyga* group
- G. tenuifilosa* group
- G. vilis* group
- G. viridis* group
- G. viridithorax* group
- G. yonguldye* group
- G. zebrata* group

(key presented above, under "Genus *Gynoplistia* MACQUART").

Gynoplistia (Gynoplistia) alice group (Figs 18, 36, 58)

Definition. Antennae with flabella of basal two flagellar segments not aligned with the more distal flabella; 16 segmented. Wing cell M1 present. Male hypopygium (Fig. 36): segment 9 (s9) undivided; gonocoxite (ge) with medial lobe (ml); only one pair of bifurcate gonostyli (g); aedeagal complex with two slender elements (lae) each side of the simple slender tapered aedeagus (ae).

Distribution in Australia. Northern.

Only one Australian species:

G. alice sp. n.

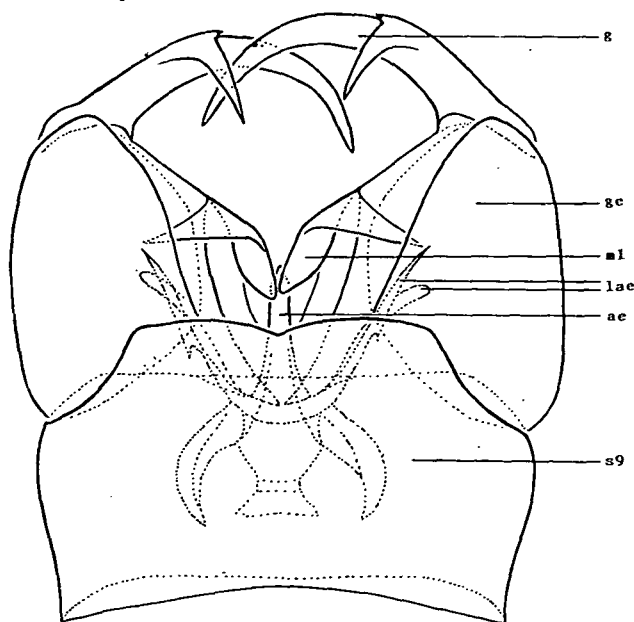


Fig. 36. *Gynoplistia (Gynoplistia) alice* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; g = gonostylus; ge = gonocoxite; lae = lateral elements of aedeagal complex; ml = median lobe of gonocoxite; s9 = segment 9.

Gynoplistia (Gynoplistia) alice spec. nov. (Fig. 18, 36, 58)

Description. Head pale brownish yellow; palps greyish brown. Antennae with scapus, pedicellus and base of first three flagellomeres pale yellow, otherwise blackish brown; 16 segmented; formula 2+2+(7-8)+(4-5) in male, 2+2+6+6 in female. Thorax black, except for anterior rim of

pronotum and lateral cervical sclerites which are yellow. Coxae black; trochanters pale yellow to greyish yellow; pro- and mesofemur yellow with apex blackened; metafemur of male yellow with black apex and, in cases, with additional darkening in basal half; metafemur of female completely black, or black with pale subapical ring or mark; tibiae dark yellowish grey with base and apex blackened in male, almost completely black in female; tarsi and claws yellowish grey to black. Wings glass-clear; with three black marks, a small one each, at arculus and at origin of Rs, and a much larger patch occupying pterostigma and cord area and including bscu; in addition a small batch at about half length of A1, and squama blackish grey. Halteres with stem dull white and knob greyish to brownish black. Abdomen black with anterior 1/2 of segments 3 and 4 dull white in male, only anterior 1/3 of segments 3 and 4 dull white, and cerci and hypogynial valves brownish yellow in female.

Dimensions. Wing length, male 4,6-5,5 mm, female 6,0-7,3 mm.

Genitalia. Male hypopygium, Figs 18, 36, 58.

Remarks. Not similar to any other described species. The yellow head and the black and yellowish white ringed abdomen are considered diagnostic for *G. alice*.

Material examined. Holotype ♂: Northern Territory, Berry Springs, 12°42'S/130°58'E, monsoon vine forest, malaise trap, 20.7.-29.8.1991, Wells and Webber (NTM). Paratypes: Northern Territory: 6 ♂♂, same locality and collectors as holotype 20.7.-27.9.1991 (GT, NTM); 4 ♂, 9 ♀♀, same locality and collectors as holotype, 9.1.-28.2.1992 (ANIC, NTM); 1 ♂, Humpty Doo, Mount Mortgage, malaise trap, 28.2.-31.3.1992, Wells and Webber (NTM). Queensland: 1 ♀, 11°45'S/142°35'E, Heathlands, 15-26.1.1992, I. Naumann and T. Weir (ANIC).

Distribution. Northern Territory (NNT), Queensland (CY).

Name. Named after Dr Alice Wells who discovered the species in Northern Territory; to be treated as a noun in apposition to the generic name.

Gynoplistia (Gynoplistia) annulata group (Figs 25, 37, 59, 60)

Definition. Antennae 15-17 segmented; flabella of basal three flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 37): segment 9 (s9) mid-dorsally divided; gonocoxites with dorsal lobe (dl) somewhat produced and ventral lobe (vl) widely rounded; two pairs of gonostyli (ig, og); aedeagal complex with two tapered elements (lae) each side of the simple slender aedeagus (ae).

Distribution in Australia. South-eastern.

Australian species:

G. annulata MACQ.

G. galbraithae ALEX.

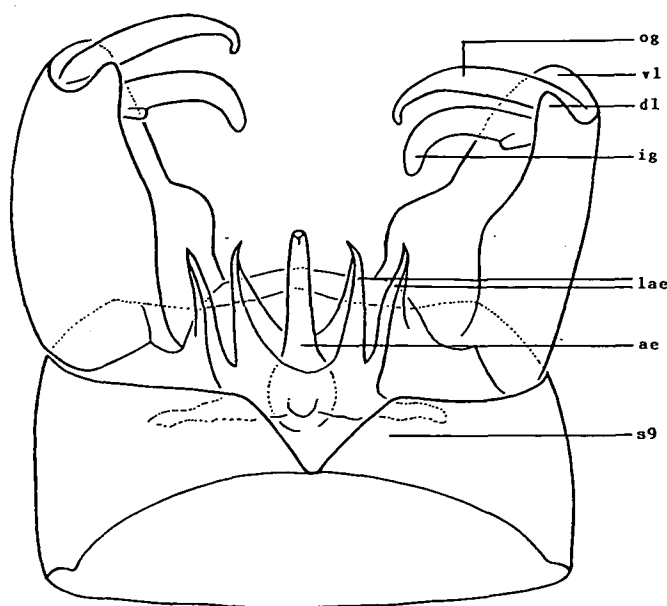


Fig. 37. *Gynoplistia (Gynoplistia) annulata* MACQART, male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; ig = inner gonostylus; lae = lateral elements of aedeagal complex; og = outer gonostylus; s9 = segment 9; vl = ventral lobe of gonocoxite.

Gynoplistia (Gynoplistia) annulata MACQUART (Figs 25, 37, 59)

Gynoplistia annulata MACQUART, Hist. nat. Ins. Dipt. II (Paris): 650 (1835).

Gynoplistia annulata WESTWOOD, Lond. Edinb. Phil. Mag. (3) 6: 280 (1835). (Preoccupied by MACQUART, 1835).

Gynoplistia annulata WESTWOOD; SKUSE, Proc. Linn. Soc. N.S.W. 4: 880 (1890).

Primary type. Holotype ♀: Australia (HOPE); seen.

Published records. Australia. New South Wales: near Sydney (SKUSE 1890: 881).

Previous illustrations. SKUSE 1890: Pl. XXIII, fig. 40 (wing). Previously known only from female.

Description of male. Head black; mouth parts dark brown. Antennae blackish brown; 19 segmented, formula 2+3+12+4. Thorax orange. Coxae and trochanters orange; femora and tibiae black except for a white ring at midlength in meso- and metatibia occupying about 1/5 length of mesotibia, 1/8 length of metatibia; tarsi and claws black with basal half of basitarsus greyish yellow. Wings 9,0 mm long, strongly infuscated with greyish black all over. Halteres brownish grey to black. Abdomen black, very hairy.

Genitalia. Male hypopygium, Figs 25, 37, 59.

Remarks. Not similar to any other described species. The orange thorax, the uniformly infuscated wings and the white rings of at least meso- and metatibia are considered diagnostic for *G. annulata*.

New records. New South Wales: Turramurra (AM).

Distribution. New South Wales (SEN).

Gynoplistia (Gynoplistia) galbraithae ALEXANDER (Fig. 60)

Gynoplistia (Gynoplistia) galbraithae ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 69 (1929).

Primary type. Holotype ♂: Victoria, Tyers, near Traralgon, Aug. 1927, J. Galbraith (MV); seen.

Published records. Victoria: Tyers, near

Traralgon (ALEXANDER 1929: 70).

Known only from male.

Genitalia. Hypopygium, Fig. 60.

Remarks. Not similar to any other described species. The minute size (very slender, wing length 4,8-6,2 mm) and the uniformly greyish brown colouration are considered diagnostic for male *G. galbraithae*.

New records. New South Wales: Lorient Ref., 3 km N Lansdowne, nr Taree (GT); Tallong (NMNH). Victoria: Cann R. (ANIC); Cape Otway (ANIC); Seville (NMNH); Thurra R., Gippsland (ANIC); Traralgon (NMNH); Woori Yallock (ANIC).

Distribution. New South Wales (NEN, SEN), Victoria.

***Gynoplistia (Gynoplistia) aurantioincta* group (Figs 21, 38, 61, 62)**

Definition. Antennae of male 17-21 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 38): segment 9 (s9) undivided; only one pair of tapered gonostyli (g); aedeagal complex with three elements (lae), possibly including interbase, each side of the long slender arrow-shaped aedeagus (ae).

Distribution in Australia. Eastern.

Australian species:

G. aurantioincta ALEX.

G. umbacoora sp. n.

***Gynoplistia (Gynoplistia) aurantioincta* ALEXANDER (Fig. 61)**

Gynoplistia (Gynoplistia) aurantioincta ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 129 (1930).

Primary type. Holotype ♂: Victoria, Monbulk, 28.1. 1928, F.E. Wilson (MV); seen; much of genitalia missing.

Published records. Victoria: Monbulk (ALEX-

ANDER 1930: 131).

Known only from male.

Genitalia. Hypopygium, Fig. 61.

Remarks. Not very similar to any other described species. The slender apical lobes of tergite 9 and the rather strongly bowed tapering gonostylus are considered diagnostic for male *G. aurantioincta*.

New records. New South Wales: Barrington Guest House, via Salisbury (UQ).

Distribution. New South Wales (NEN), Victoria.

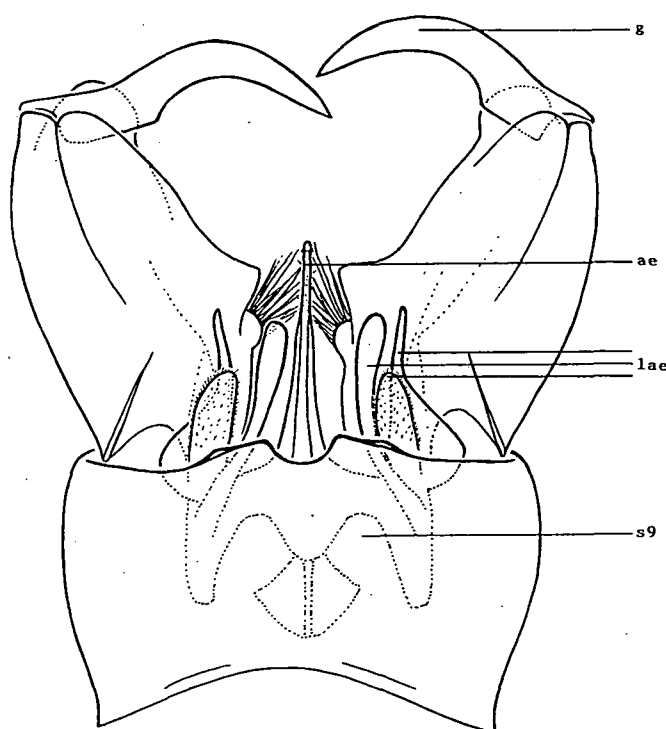


Fig. 38. *Gynoplistia (Gynoplistia) umbacoora* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; g = gonostylus; lae = lateral elements of aedeagal complex; s9 = segment 9.

***Gynoplistia (Gynoplistia) umbacoora* spec. nov. (Figs 21, 38, 62)**

Description (♂). Head largely shiny black; mouth parts blackish brown. Antennae with scapus and pedicellus brownish yellow, otherwise yellowish grey to greyish brown; 17 segmented, formula 2+2+11+2, flabella very long. Thorax with pronotum yellowish grey, and prescutum,

scutum, scutellum and mediotergite shiny red-dish- to blackish brown, otherwise greyish brown. Coxae greyish brown; trochanters yellowish to greyish brown; profemur and mesofemur greyish yellow with apical 1/8 brownish black; tibiae yellowish grey with base and apex slightly darkened; tarsi and claws yellowish grey to brownish black; hindleg missing. Wings hyaline, apex and along some veins infuscated; a greyish black patch each, just distal to arculus, at origin of Rs, in cord area and between A1 and A2. Halteres with stem pale yellowish grey and knob greyish brown. Abdomen badly preserved and probably discolored; tergites 1 and 2 apparently dark, tergites 3 and 4 pale basally, dark distally.

Dimensions. Wing length 6,2 mm.

Genitalia. Hypopygium, Figs 21, 38, 62.

Female unknown.

Remarks. Not very similar to any other described species. The short wide posterior lobes of tergite 9 and the rather evenly bowed gonostylus are considered diagnostic for male *G. umbacoora*.

Material examined. Holotype ♂: Queensland, Cairns, Nov. 1944, F/sgt Childe (ANIC).

Distribution. Queensland (NEQ); known only from type locality.

Name. Umbacoora (= Australian Aboriginal word for "child") refers to the small size.

Gynoplistia (Gynoplistia) bella group (Figs 1, 7, 8, 19, 39, 63-69)

Definition. Antennae 16-19 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 39): segment 9 (s9) undivided, ventrally with almost straight posterior margin; ventral lobe of gonocoxites (vl) angulate or pointed, directed posteromedially; only one pair of tapered gonostyli (g); aedeagal complex with one or two elements (lae) each side of the short and usually stout and inconspicuous aedeagus (ae).

Distribution in Australia. Eastern and south-western.

Australian species:

G. atripes ALEX.

G. bella (WALK.)

G. chadwicki sp. n.

G. clarki ALEX.

G. marpanye sp. n.

G. nigripennis ALEX.

G. yarrumba sp. n.

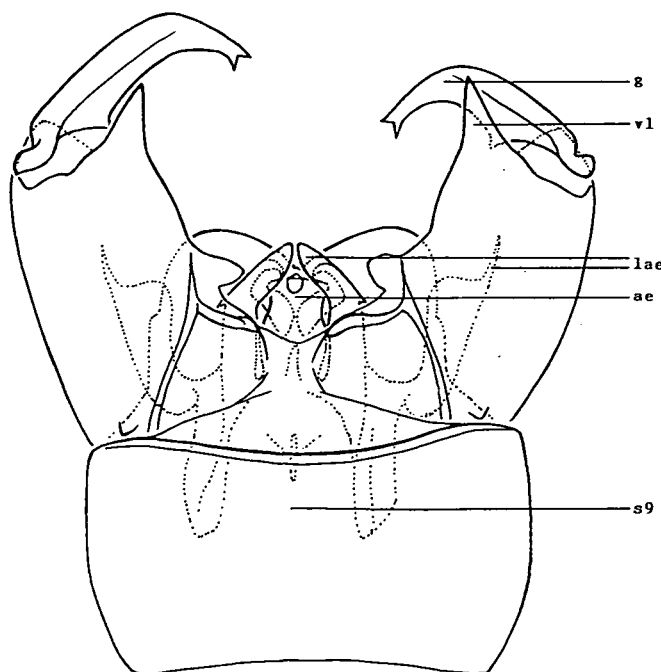


Fig. 39. *Gynoplistia (Gynoplistia) chadwicki chadwicki* sp. et ssp. n., male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; g = gonostylus; lae = lateral elements of aedeagal complex; s9 = segment 9; vl = ventral lobe of gonocoxite.

Gynoplistia (Gynoplistia) bella (WALKER) (Figs 1, 7, 8, 19, 39, 63, 64)

Ctenophora bella WALKER, Ent. Mag. 2: 470 (1835).

Gynoplistes variegata WESTWOOD, Zool. J. Lond. 5: 448 (1835).

Variegata gynoplistioides BIGOT, Annls Soc. ent. Fr. (3) 2: 456 (1854).

Gynoplistia elegans WALKER, Insecta Saundersiana, 5: 447 (1856).

Gynoplistia bella pallidapicalis ALEXANDER, Rec. S. Aust. Mus. 2: 250 (1922).

Primary types. Holotype ♀ of *C. bella* WALKER:

New Holland (probably BMNH); possibly lost, not seen. Holotype ♂ of *G. variegata* WESTWOOD: Australasia (HOPE); seen. Holotype ? of *V. gymnoplisioides* BIGOT: no locality given (repository unknown); possibly lost, not seen. Holotype ♂ of *G. elegans* WALKER: New South Wales (BMNH); seen. Holotype ♂ of *G. bella pallidapicalis* ALEXANDER: Tasmania, Cradle Mountain, H.J. Carter and A.M. Lea (SAM); not seen.

Published records. New Holland (WALKER 1835: 470). Australasia (WESTWOOD 1835: 448). Australia: generally distributed (SKUSE 1890: 870). New South Wales: no other data (WALKER 1856: 447); Bredbo R., Australian Alps (ALEXANDER 1936: 93); Sydney (Alexander 1923b: 258); about Sydney (SKUSE 1890: 870). Tasmania: Cradle Mtn (ALEXANDER 1922: 250). Western Australia: King George's Sound (SKUSE 1890: 870).

Previous illustrations. WESTWOOD 1835: Pl. XXII, Figs 12, 13 (antennae). SKUSE 1890: Pl. XXIII, fig. 33 (wing); Pl. XXIV, fig. 66 (male hypopygium).

Genitalia. Male hypopygium, Figs 19, 39, 63, 64.

Remarks. Not very similar to any other described species, however, only the stout spiny aedeagus of the male can be considered as diagnostic for *G. bella*. What is regarded here as *G. bella*, is extremely variable not only in wing pattern but also in colouration of body and legs and even in details of the structure of the male hypopygium and may possibly be complex. Even though some geographical trends seem to emerge it is at this stage not possible to distinguish discrete subspecies.

New records. Queensland: Atherton, East Barron (UQ); 4 mi. S of Atherton (ANIC); Bald Knob, Maleny (UQ); Binna Burra (UQ); Bones Knob (ANIC); Brisbane (ANIC, UQ); Camp Mt (ANIC); Coolum (UQ); Dunwich (UQ); Jamboree Heights nr Brisbane (UQ); 5 mi. S Kenilworth (ANIC); Kingaroy (UQ); Kolan R., 18 mi. N of Bundaberg (ANIC); Long Pocket, Brisbane (ANIC); Mt Glorious (UQ); Nambour (UQ); Redland Bay, nr Cleveland (UQ); nr Rosedale (ANIC); Samford (UQ); 17 Mile

Rocks, Brisbane (UQ); Sunnybank (UQ); Tibrogargan (UQ). New South Wales: Armidale (ANIC); Billabong and Forest Ck jn, 42 km NE of Deniliquin (ANIC); 5 mi. S of Bega (ANIC); Belmont (MV); Black Mtn, A.C.T. (ANIC); Blayney (ANIC); upper Bobundara Ck, nr Nimmitabel (GT); Botany (ANIC); 2,5 mi. NW of Bungendore (ANIC); Camden (ANIC); Canberra, A.C.T. (ANIC); Canoe Ck, Colo R. gorge (GT); Clyde Mtn nr Braidwood (ANIC); Cotter R., A.C.T. (ANIC); Dangars Falls (ANIC); Engadine (GT); 2 mi. NE Ungai (ANIC); Gilmore Ck, Tumut (ANIC); Gordon, N of Sydney (GT); Gosford (ANIC); Goulbourn (ANIC); Guyra (ANIC); Jugiong (ANIC); Mt Kosciusko, 3000 ft (ANIC); 3 km N of Lansdowne, via Taree (GT); Lidcombe (ANIC); Molonglo R., A.C.T. (ANIC); Moonbar, 3500 ft (ANIC); Picton Lakes (ANIC); 9 mi. NE of Rylstone, 2400 ft (ANIC); Shoalhaven R., Braidwood Rd (ANIC); Shoalhaven R., nr Braidwood (ANIC); Thredbo, 3000 ft, Mt Kosciusko (ANIC); Tumut (ANIC); 1 mi. N Uki (ANIC); Wombeyan Caves (GT); Yarralumla (ANIC). Victoria: Bacchus Marsh (MV); Blackburn (MV); Bulleen (ANIC); Dingley (MV); Echuca (MV); Lang Lang (ANIC); Laverton (ANIC); Lower Tarwin (MV); Mooropna (ANIC); Mornington Peninsula (ANIC); Narbethong (ANIC); Noorinbee (MV); Ringwood (ANIC); Sherbrooke (ANIC); Tanjil R. (MV); Vandong nr Wanan (ANIC); Werribee (ANIC); Wilsons Promontory, Chinaman's Ck (ANIC); Wodonga (ANIC); You Yangs (ANIC). Tasmania: no other data (AM, ANIC); Cambridge (MV); 3 mi. WSW of Cambridge (ANIC); Derwent Bridge (UQ); Derwent R., 2 km NW Derwent Bridge (MV); 3 mi. NNW of Eaglehawk Neck (ANIC); Farmhouse Ck, Picton Rd (GT); 1 mi. NW of Granton nr Hobart (ANIC); Great Forester R., 5 km NW Forester (MV); Hellyer R., S of Wynyard (GT); Hobart (ANIC, MV); Lake Dulverton, Oatlands (ANIC); Lake Pedder (MV); Lake Sorrell (GT); Macquarie R., 8 km W Campbell Town (MV); Patrick R. (MV); 4,5 km E of Penguin Coast (ANIC); Scotts Peak Dam Rd and Clear Ck (GT); Woodbury (ANIC). South Australia: Angaston (ANIC); Flinders Ra., Wilpena Pond (ANIC); 11 km NW of Hawker (ANIC);

Kanmantoo (ANIC); Mt Lofty (ANIC); 7 mi. W of Murray Town (ANIC); 9 mi. W of Murray Town (ANIC); Nooltana Ck, 13 km NW by N of Hawker (ANIC); Oratunga Ck, 11 km E of Parachilna (ANIC); Picadilly (MV); Tungkillo (MV). Western Australia: Mt Barker (ANIC); 9 km N Bindoon (WAM); Mt Burker (ANIC); Bridgetown (WAM); Cape Leeuwin (WAM); Deepdene (ANIC); Deep Dene, Karridale (ANIC); Esperance, 33°54'S/121°54'E (UQ); Gingin, Molecap Hill (WAM); Guildford (ANIC, WAM); Helena R.F. lots, West Midland (WAM); Hovea (ANIC); Jarrahdale (WAM); West Midland (WAM); Narrogin (ANIC); Noble Falls, 30 km SW of Toodyay (WAM); Pemberton (ANIC); Porongurup Ra. (ANIC); Quarry Bay, Cape Leeuwin (WAM); Stirling Ra., Moigimup Spring (WAM); Walpole-Nornalup N. P., 34° 57'S/116° 45'E (UQ).

Distribution. Queensland (NEQ, SEQ), New South Wales (NEN, SEN), Victoria, Tasmania, South Australia (SES), Western Australia (SWA).

Gynoplistia (Gynoplistia) atripes
ALEXANDER stat. nov.

Gynoplistia bella atripes ALEXANDER, Ann. Mag. nat. Hist. (9) 13: 514 (1924).

Primary type. Holotype ♀: New South Wales, Kosciusko, 7.12.1922, G. Goldfinch (AM); seen.

Published records. New South Wales: Kosciusko (ALEXANDER 1924: 515).

Known only from female.

Original description. Length 13 mm, wing 11 mm. Rostrum and palpi black. Antennae 18 segmented, the formula being 2+2+7+7, the branch on the ninth flagellar segment minute. Head shiny coal-black. Pronotum and mesonotum shiny coal-black, the praescutum smooth; pleura covered with a microscopic silvery pubescence. Legs with coxae black, greyish pruinose; remainder of legs entirely black. Wings with the base broadly orange; cell C paler than cell Sc; the quadrate dark area at origin of Rs not connected along M or Cu with the dark basal area or the seam along the cord; the darkened apex relatively narrow and pale, the subapical white band thus being very broad

and complete; venation: veins R2 and R3 divergent; no macrotrichiae on Rs, R2+3, R2, M1+2, or M2; on R3 about 9, on distal half; on R4+5 about 24; on M1 only 1 or 2; microtrichiae arranged in dense clusters of six or eight. Halteres entirely black. Abdomen with segments 1 and 6 to 9 black; segments 2 to 5 orange, ovipositor with the dorsal shield black, the valves horn-coloured.

Remarks. According to ALEXANDER (1924) closely related to *G. bella* (WALK.). Uniformly black legs and a heavy black wing pattern appear to be diagnostic characters of female *G. atripes*. Because of marked differences in wing pattern it is unlikely that *G. marpanye* sp. n. is the male of *G. atripes*.

New records. New South Wales: Macquarie Rivulet (GT); Mt Kosciusko Motel (ANIC); Sawpit Creek, 3800 ft, Mt Kosciusko (AM). Victoria: Tennyson Ck, 7 km NW of Buldah, 37° 13'S/149° 06'E (MV).

Distribution. New South Wales (SEN), Victoria.

Gynoplistia (Gynoplistia)
***marpanye* spec. nov. (Fig. 65)**

Description (♂). Head black; mouth parts greyish- to blackish brown. Antennae greyish brown to blackish brown; number of segments unknown (antennae partly missing), at least 16; formula 2+2+?(at least 10)+?. Thorax largely shiny black; pleura black, pruinose. Coxae black, pruinose; trochanters brownish black; other segments of midleg greyish to brownish black, of fore- and hindleg missing. Wings with base yellow, otherwise largely hyaline; apex slightly infuscated; three distinct black marks: one, very small, just distal to arculus, one, very small, at origin of Rs, and one, much larger, at level and occupying pterostigma and cord; an indistinct dark cloud along vein A1 at 2/3 length in cell A1, and another along vein A2 at about midlength in cell A2. Halteres greyish brown. Abdomen with segment 1, posterior 2/3 of segment 6, segments 7 and 8 and hypopygium black, otherwise bright orange.

Dimensions. Wing length 9,0 mm.

Genitalia. Hypopygium, Fig. 65.

Female unknown.

Remarks. Not very similar to any other described species. The apparently rather uniformly dark legs, the rather light wing pattern, the large mesal lobe of the gonocoxite and the blunt gonostylus are considered diagnostic characters of male *G. marpanye*.

Material examined. Holotype ♂: New South Wales, Snowy River, Mt Kosciusko, 4000 ft, 12.12.1931, L.F. Graham (ANIC).

Distribution. New South Wales (SEN); known only from Mt Kosciusko.

Name. Marpanye (= Australian Aboriginal word for "club") refers to the shape of the gonostylus.

Gynoplistia (Gynoplistia) nigripennis ALEXANDER (Fig. 66)

Gynoplistia fumipennis ALEXANDER, Proc. Hawaii. ent. Soc. 5: 253 (1923). (Preoccupied by WALKER, 1856).

Gynoplistia nigripennis ALEXANDER, Ann. Mag. nat. Hist. (9) 17: 530 (1926).

Primary type. Holotype ♀ of *G. fumipennis* ALEXANDER: New South Wales, Blue Mountains, Dec. 1912, collector unknown (BPBM); seen.

Published records. New South Wales: Blue Mts (ALEXANDER 1923b: 253).

Previously known only from female.

Description of male. Head shiny black; mouth parts black. Antennae black to blackish brown; 19 segmented, formula 2+2+(11-12)+(3-4). Thorax dorsally shiny black; pleura brownish black, largely pruinose; coxae brownish black, pruinose; remaining leg segments brownish black to black. Wings 8,0-8,9 mm long; uniformly suffused with brownish black all over. Halteres black. Abdomen bright orange with base of tergite 1 blackish brown and most of segment 7, entire segment 8 and hypopygium black.

Genitalia. Male hypopygium, Fig. 66.

Remarks. Somewhat similar in structure to *G. bella* (WALK.). Black legs, uniformly dark wings and the largely orange abdomen are diagnostic characters of *G. nigripennis*. The antennae of the female (not described by ALEXANDER 1923b) are 16-17 segmented, the formula being 2+2+(6-7)+6.

New records. New South Wales: Alpine Ck (ANIC); Blundell's (NMNH); Budthingeroo Ck, Kanangra Boyd N. P. (UQ); Club Lake, Kosciusko (NMNH); Coombadja Ck, Washpool N.P. (GT); The Creel, Mt Kosciusko, 3000 ft (ANIC); Goondera Ridge, Royal National Park (AM); Monga, nr Braidwood (ANIC); Mt Kosciusko (NMNH); Mt Kosciusko, Lake Albina (MV); National Park, near Sydney (NMNH); Royal National Park (AM); Upper Murrumbidgee River, 4400 ft (ANIC); Snowy River (ANIC). Victoria: Beaconsfield (MV); Fernshaw (MV, NMNH); Ferntree Gully (MV); 13 SE Hotham, 4900 ft (ANIC).

Distribution. New South Wales (NEN, SEN), Victoria.

Gynoplistia (Gynoplistia) chadwicki spec. nov. (Fig. 67)

Remarks. Similar to *G. clarki* ALEX. and *G. yarrumba* sp. n. The shape of the single elements of the male hypopygium (particularly gonostylus and lateral elements of the aedeagal complex) is considered diagnostic for male *G. chadwicki*.

Name. This species is gratefully dedicated to Mr C.E. Chadwick who collected it on Mt Kosciusko.

The following two subspecies are recognized:

G. c. chadwicki ssp. n.

G. c. tasmanica ssp. n.

Gynoplistia (Gynoplistia) chadwicki chadwicki spec. et subspec. nov. (Fig. 67)

Description. Head black; mouth parts greyish brown. Antennae greyish- to blackish brown; 17-18 segmented in male, formula 2+2+10+3 or 2+2+10+4; 16 segmented in female, formula 2+2+7+5. Thorax largely shiny black; pleura pruinose. Coxae black, with pruinose; trochanters greyish brown; femora pale brownish yellow with distal 1/5 black; tibiae brownish yellow with apex black; tarsi greyish black, only basitarsus of hindleg largely greyish yellow and with apex greyish black; claws greyish black. Wings with base yellow, otherwise largely hyaline, slightly suffused with whitish grey;

costal and subcostal field and apex infuscated; three significant greyish black marks, one just distal to arculus, one at origin of Rs and one in cord and pterostigma area. Halteres blackish grey. Abdomen of male with segment 1, 2 and 6-8 and hypopygium black, segments 4 and 5 pale brownish yellow with distinct black markings in distal 1/3; abdomen of female with very similar pattern, but tergite 10, sternite 8, cerci and hypogynial valves brownish yellow.

Dimensions. Wing length, male 8,3-9,0 mm, female 11,5 mm.

Genitalia. Male hypopygium, Fig. 67.

Remarks. Very similar to *G. chadwicki tasmanica* ssp. n. The distinct black pattern of abdominal segment 3 and the completely pale segment 5 are diagnostic characters of *G. c. chadwicki*.

Material examined. Holotype ♂: New South Wales, Mount Kosciusko, 6-13.1.1990, C.E. Chadwick and B.L. Brunet (AM). Paratypes: New South Wales: 1 ♀, same data as holotype (AM); Victoria: 1 ♂, Warburton?, from R.J. Kelly, Esq. Healesville (MV).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia) chadwicki tasmanica* subspec. nov.**

Description. Head black; mouth parts brownish black. Antennae brownish- to greyish black; 18 segmented in male, formula 2+2+10+4 or 2+2+11+3; 16 segmented in female, formula 2+2+7+5. Thorax largely shiny black; pleura pruinose. Coxae black, with pruinescence; trochanters brownish black; femora pale brownish yellow with distal 1/5 to 1/4 black; tibiae greyish yellow to yellowish grey with apex black; tarsi greyish brown to black except for the basitarsus of hindleg which is greyish yellow for basal 3/4 and otherwise greyish brown; claws greyish brown to black. Wings with base yellow, otherwise largely hyaline but not very clear; costal and subcostal cells and apex infuscated; three distinct black marks, one just distal to arculus, one at origin of Rs and one in cord and pterostigma area; one or two smaller

and less distinct marks in anal cells. Halteres greyish brown. Abdomen of male with segments 1 and 6-8 and hypopygium black, segments 3 and 4 pale yellow, segment 2 black with or without yellow middorsal mark, and segment 5 basally yellow, otherwise black; abdomen of female with very similar pattern but tergite 10, sternite 8, cerci and hypogynial valves brownish yellow.

Dimensions. Wing length, male 8,2-9,3 mm, female 10,6 mm.

Genitalia. Male hypopygium much as in *G. c. chadwicki* sp. n.

Remarks. Very similar to *G. c. chadwicki* sp. et ssp. n. The completely pale abdominal segment 3 and the largely black abdominal segment 5 are diagnostic characters of *G. chadwicki tasmanica*.

Material examined. Holotype ♂: Tasmania, 42°38'S/145°53'E, 1.2.1978, L. Hill (ANIC). Paratypes; 2 ♂♂, 1 ♀, same data as holotype (ANIC, GT).

Distribution. Tasmania.

Name. The subspecific name refers to the distribution.

***Gynoplistia (Gynoplistia) clarki* ALEXANDER (Fig. 68)**

Gynoplistia (Gynoplistia) clarki ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 121 (1930).

Primary type. Holotype ♂: Victoria, Goulburn River, Alexandra, 7.11.1927, J. Clark (MV); seen.

Published records. Victoria: Goulburn River, Alexandra (ALEXANDER 1930: 122).

Previously known only from male.

Description of female. Head missing in the two specimens available. Thorax dorsally dull greyish black, largely pruinose. Coxae black, pruinose; trochanters black; femora brownish yellow with distal 1/6 black; tibiae brownish yellow with distal 1/4 brownish black; in both, femora and tibiae, the different colours not well defined; tarsi and claws blackish brown to black. Wings 10,8-11,6 mm long; with prearcular portion pale orange, otherwise hyaline with faint whitish yellow tint; a heavy brownish black

pattern as follows: a large area adjacent to arculus in cells R and M, a large square area at origin of Rs; a large patch at level and including pterostigma, anterior cord, veins enclosing dm, and bscu; a spot in cell A1 adjacent to the vein at near 2/3 its length; a spot in cell A2 adjoining to the vein near midlength. Halteres with stem dull yellow and knob brownish black. Abdomen with segment 1 black, posterior margin of tergite 8, tergites 9 and 10 and sternite 8 greyish- to blackish brown, cerci and hypogynial valves brown, otherwise dark brownish yellow.

Genitalia. Male hypopygium, Fig. 68.

Remarks. Similar to *G. chadwicki* sp. n. and *G. yarrumba* sp. n. The largely uniformly orange abdomen (both sexes) and the particular shape of the elements of the male hypopygium are considered diagnostic characters of *G. clarki*.

New records. New South Wales: Mt Kosciusko (NMNH). Victoria: Delatite R., 7,7 mi. below Mirrimbah (GT); Tanjil R. (MV).

Distribution. New South Wales (SEN), Victoria.

Gynoplistia (Gynoplistia) *yarrumba* spec. nov. (Fig. 69)

Description (♂). Head black; mouth parts greyish to blackish brown. Antennae greyish to blackish brown; 17-18 segmented, formula 2+2+10+3 or 2+2+11+3. Thorax largely shiny black; pleura pruinose. Coxae black with some pruinescence; trochanters brownish black; femora yellow with distal 1/5 to 1/4 black; pro- and mesotibia yellowish grey to greyish black, distally darker than basally; metatibia largely pale greyish yellow with apex black; tarsi and claws blackish brown to black. Wings with base yellow, otherwise largely hyaline, suffused slightly with whitish grey; apex infuscated; three large black patches, one just distal to arculus, one at origin of Rs and one in cord and pterostigma area. Halteres brownish grey to greyish black. Abdomen with segments 1,6,7,8 black, otherwise bright orange; hypopygium largely black, but gonocoxites pale orange.

Dimensions. Wing length 7,0-8,0 mm.

Genitalia. Hypopygium, Fig. 69.

Female unknown.

Remarks. Similar to *G. chadwicki* sp. n. and *G. clarki* ALEX. A small posteromedian inner lobe of tergite 9 and the blade-shaped inner lateral element of the aedeagal complex are diagnostic characters of *G. yarrumba*.

Material examined. Holotype ♂: New South Wales, Sydney, Manly, 23.9.1929, Health Dept (ANIC). Paratypes: New South Wales: 1 ♂, same data as holotype (GT); 1 ♂, same locality, 16.3.1929, Health Dept (ANIC); 1 ♂, Mooney Mooney Creek near Gosford, 20.11.1975, D.K. McAlpine (AM); 1 ♂, Oxford Falls, 1.12.1962, R. Lossin (AM).

Distribution. New South Wales (SEN).

Name. Yarrumba (= Australian Aboriginal word for "boomerang") refers to the particular shape of the gonostylus.

Gynoplistia (Gynoplistia) *distinctissima* group (Figs 9c, 14, 40, 70, 71)

Definition. Antennae 16-17 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 absent. Male hypopygium (Fig. 40): segment 9 (s9) undivided, ventrally with wide V-shaped posterior excision; gonocoxites (ge) with small hairy mediobasal knob; only one pair of pointed tapered gonostyli (g); aedeagal complex with two pointed elements (lae) each side of the long slender simple aedeagus (ae) which is very narrow apically.

Distribution in Australia. South-eastern (excluding Tasmania).

Australian species:

G. distinctissima ALEX.

G. resplendens ALEX.

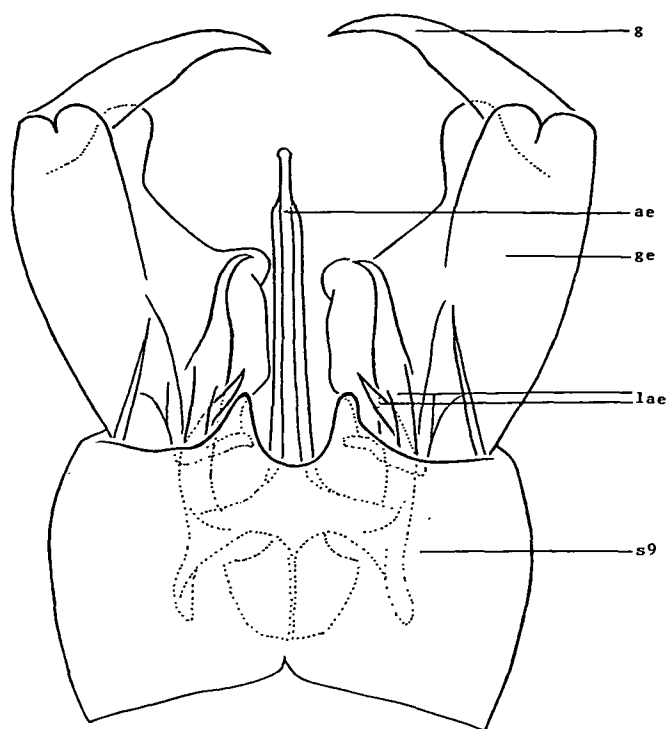


Fig. 40. *Gynoplistia (Gynoplistia) distinctissima* ALEXANDER, male hypopygium, dorsal aspect.
Abbreviations: ae = aedeagus; g = gonostylus; ge = gonocoxite; lae = lateral elements of aedeagal complex; s9 = segment 9.

***Gynoplistia (Gynoplistia) distinctissima* ALEXANDER (Figs 9c, 14, 40, 70)**

Remarks. *G. distinctissima* is very similar to *G. resplendens* ALEX. The black and yellow abdomen (both sexes) and the wide U-shaped notch between the narrow apical lobes of tergite 9 (male) are considered diagnostic for *G. distinctissima*.

The following two subspecies are recognized:
G. d. distinctissima ALEX.

G. d. nigrina ALEX.

***Gynoplistia (Gynoplistia) distinctissima distinctissima* ALEXANDER (Figs 9c, 14, 40, 70)**

Gynoplistia (Gynoplistia) distinctissima ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 135 (1930).

Primary type. Holotype ♂: Victoria, Ben Cairn, near Millgrove, in beech gully, 2900-3200 ft, 9.2.1929, F.E. Wilson (MV); seen.

Published records. Victoria: Ben Cairn, near Millgrove, 2900-3200 ft (ALEXANDER 1930: 136).

Previously known only from male.

Description of female. Head with disc of the vertex shiny black, otherwise brownish yellow. Antennae with scapus and pedicellus pale brown, otherwise greyish to blackish brown; 16 segmented, formula 2+2+(4-5)+(7-8). Thorax yellowish to pale greyish brown, the pleura with some pruinescence. Coxae and trochanters pale brownish yellow; femora brownish yellow; tibiae yellowish brown with apex slightly darkened; tarsi and claws yellowish- to greyish brown. Wings 6,5-7,5 mm long; glass-clear, the base pale brownish yellow; two greyish brown marks, a spot at origin of Rs and a larger subtriangular patch including pterostigma and cord. Halteres brownish- to greyish yellow. Abdomen yellowish brown with only tergite 1 markedly darker (blackish brown).

Genitalia. Male hypopygium, Figs 14, 40, 70.

Remarks. Very similar to *G. distinctissima nigrina* ALEX. The extensive yellow pattern of the abdomen is considered diagnostic for *G. d. distinctissima*.

New records. Victoria: Ferntree Gully (MV); Otway Ranges, Lavers Hill (MV); Otway Ranges, Maits Rest (MV); Otway Ranges, Melba Gully (MV); Otway Ranges, Turtons Pass (MV); Sassafras (MV).

Distribution. Victoria.

***Gynoplistia (Gynoplistia) distinctissima nigrina* ALEXANDER**

Gynoplistia (Gynoplistia) distinctissima nigrina ALEXANDER, Ann. Mag. nat. Hist. (12) 4: 596 (1951).

Primary type. Holotype ♂: Victoria, mountains above Warburton, 3000-3800 ft, 2.3.1930, F.E. Wilson (MV); seen.

Published records. Victoria: mountains above Warburton, 3000-3800 ft (ALEXANDER 1951: 596).

Known only from male.

Genitalia. Hypopygium much as in *G. d. distinctissima* ALEX.

Remarks. Very similar to *G. d. distinctissima* ALEX. The rather restricted yellow pattern of the abdomen is considered diagnostic for *G. distinctissima nigrina*.

New records. None.

Distribution. Victoria; known only from type locality.

***Gynoplistia (Gynoplistia) resplendens* ALEXANDER, stat. nov. (Fig. 71)**

Gynoplistia (Gynoplistia) distinctissima resplendens ALEXANDER, Ann. Mag. nat. Hist. (12) 4: 596 (1951).

Primary type. Holotype ♂: New South Wales, Blundell's, A.C.T., 21.12.1930, A.L. Tonnoir (ANIC); seen.

Published records. New South Wales: Blundell's, A.C.T. (ALEXANDER 1951: 596).

Previously known only from male.

Description of female. Head black; mouth parts greyish- to reddish brown. Antennae greyish- to blackish brown; partly missing in the specimen available. Thorax with prothorax, front and sides of prescutum, sides of scutum, laterotergites, area ventral to spiracle and anepisternum largely black, otherwise brownish yellow, the pleura with some pruinescence; coxae brownish yellow; pruinose; trochanters brownish yellow; mesofemur from brownish at base to black at apex without much definition of colours; mesotibia greyish brown to black; mesotarsus and claws black; other legs missing. Wings 7,1 mm long; almost clear with two greyish black marks, a spot at origin of Rs and a larger patch including pterostigma and cord. Halteres yellowish grey to greyish brown. Abdomen largely yellowish brown to orange; tergite 1 blackish brown and sides of segments 2-7 and tergite 8 blackened.

Genitalia. Male hypopygium, Fig. 71.

Remarks. Very similar to, but apparently specifically distinct from *G. distinctissima* ALEX. The black and red abdomen (both sexes) and the narrow U-shaped notch between the comparatively wide apical lobes

of tergite 9 (male) are considered diagnostic characters of *G. resplendens*.

New records. New South Wales: Mt Gingera, A.C.T. (ANIC, GT).

Distribution. New South Wales (SEN).

***Gynoplistia (Gynoplistia) exornata* group (Figs 30, 41, 72, 73)**

Definition. Antennae 17-18 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 41): segment 9 (s9) undivided, ventrally with posterior margin widely concave; gonocoxite (ge) with small hairy mediobasal lobe; two pairs of gonostyli, the outer (og) very small, the inner (ig) strongly bent and pointed; aedeagal complex with only one large element (lae) each side of the simple slender tapered aedeagus (ae).

Distribution in Australia. South-eastern (excluding Tasmania).

Australian species:

G. exornata ALEX.

G. kua sp. n.

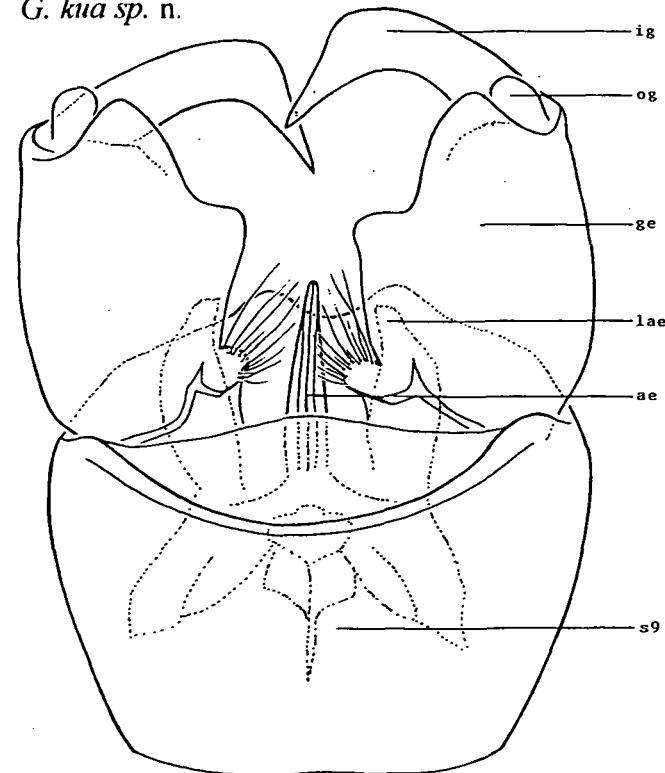


Fig. 41. *Gynoplistia (Gynoplistia) kua* sp. n., male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; ge = gonocoxite; ig = inner gonostylus; lae = lateral element of aedeagal complex; og = outer gonostylus; s9 = segment 9.

***Gynoplistia (Gynoplistia) exornata* ALEXANDER (Fig. 72)**

Gynoplistia (Gynoplistia) exornata ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 62 (1929).

Primary type. Holotype ♂: Victoria, Lower Tarwin, 22.11.1925, G.F. Hill (MV); seen.

Published records. Victoria: Lower Tarwin (ALEXANDER 1929: 63).

Previously known only from male.

Description of female. Head shiny black; mouth parts pale to dark greyish brown. Antennae with scapus greyish yellow, otherwise greyish- to blackish brown; 17 segmented, formula 2+2+7+6. Thorax dorsally shiny black; pleura brownish black, pruinose. Coxae blackish brown, pruinose; trochanters and femora brownish yellow; tibiae black, at the base brownish yellow; protibia with yellowish white ring, occupying 2/5 length of segment, beyond midlength; metatibia with yellowish white ring, occupying 1/4 length of segment, beyond midlength; tarsi and claws black. Wings 9,1-9,6 mm long; hyaline with base yellow; a brownish black spot at origin of Rs and a dark patch occupying pterostigma and cord area costal of dm. Halteres yellow. Abdomen with segment 1, basal margin and sides of segment 2 and sides of tergites 2-4 black, otherwise bright orange.

Genitalia. Male hypopygium, Fig. 72.

Remarks. Very similar to *G. kua* sp. n. The black thorax (both sexes) and the size of the outer gonostylus which is almost half as long as the inner gonostylus (male) are considered diagnostic for *G. exornata*.

New records. Victoria: Dandenongs, Olinda Rd (MV); Mt Baw Baw, 4400 ft (ANIC); Mt Cole (MV); Sherbrooke Forest, Dandenongs (MV); Warburton (MV).

Distribution. Victoria.

***Gynoplistia (Gynoplistia) kua* spec. nov. (Figs 30, 41, 73)**

Description. Head shiny black; rostrum and mouth parts yellowish- to greyish brown. Antennae with scapus and pedicellus pale yellowish to greyish brown, otherwise dark greyish

brown; 18 segmented in male, formula 2+2+9+5 or 2+2+8+6; 17 segmented in female, formula 2+2+6+7. Thorax with anterior portion of prescutum shiny black, and black between spiracle and wing base, otherwise pale yellowish brown. Coxae, trochanters and femora pale yellowish brown; tibiae brown to black, a white ring occupying almost distal 1/2 of protibia (except for the extreme apex) in male, more than distal 1/2 in female, a white ring occupying third 1/4 of mesotibia only in female, and a white ring occupying third 1/4 of metatibia in both sexes; tarsi and claws dark brown to black. Wings clear; two brownish grey marks including a spot at origin of Rs and a small patch in pterostigma area. Halteres yellowish to pale greyish brown, the stem paler than the knob. Abdomen yellowish to pale reddish brown.

Dimensions. Wing length, male 8,1 mm, female 9,5 mm.

Genitalia. Male hypopygium, Figs 30, 41, 73.

Remarks. Very similar to *G. exornata* ALEX. The largely brown thorax (both sexes) and the minute, hardly detectable outer gonostylus (male) are considered diagnostic for *G. kua*.

Material examined. Holotype ♂: New South Wales, Barrington House, via Salisbury; 17-20.12.1963, A. Macqueen (QM). Paratype: 1 ♀, New South Wales, New England National Park, via Ebor, 22-23.1.1966, B. Cantrell (UQ).

Distribution. New South Wales (NEN).

Name. Kua (= Australian Aboriginal word for "dingo") refers to the largely yellowish brown colouration.

***Gynoplistia (Gynoplistia) forceps* group (Figs 27, 42, 74-79)**

Definition. Antennae 15-16 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 42): segment 9 (s9) undivided but deeply incised posteroventrally; gonocoxites with dorsal lobe (dl) prominent; interbase (i) strongly developed; two pairs of gonostyli (ig, og), at least one pair rather complex; aedeagal complex with one large element (lae) each side of the short, truncate or slightly bifid aedeagus (ae).

Distribution in Australia. South-eastern (excluding Tasmania).

Australian species:

G. bickeli sp. n.

G. capreolus sp. n.

G. elaphus sp. n.

G. erinundra sp. n.

G. forceps ALEX.

G. gingera sp. n.

G. histrionica ALEX.

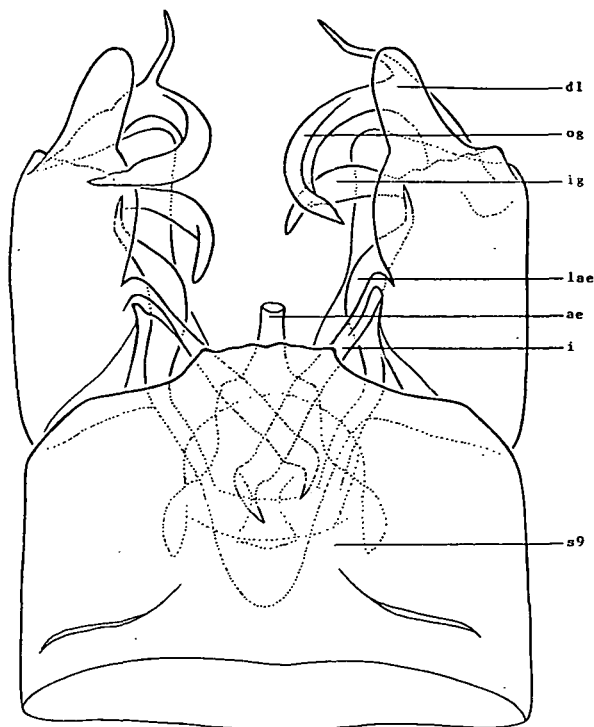


Fig. 42. *Gynoplistia (Gynoplistia) erinundra* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; i = interbase; ig = inner gonostylus; lae = lateral element of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Gynoplistia) forceps ALEXANDER (Fig. 74)

Gynoplistia (Gynoplistia) forceps ALEXANDER, Ann. Mag. nat. Hist. (10) 8: 162 (1931).

Primary type. Holotype ♂: New South Wales, Wentworth Falls, Blue Mountains, 20-30.10.1930, F.E. Wilson (MV, NMNH); seen.

Published records. New South Wales: Wentworth Falls, Blue Mts (ALEXANDER 1931: 163).

Previously known only from male.

Description of female. Head black; mouth parts brown. Antennae greyish- to blackish brown; 16 segmented, formula 2+2+6+6. Thorax dorsally black; pleura brown. Coxae and trochanters brown; femora brownish yellow with distal 1/3 blackened in pro- and mesofemur, distal 1/4 blackened in metafemur; pro- and mesotibia blackish brown; metatibia blackish brown in proximal 2/5, black in distal 1/5, otherwise yellow; tarsi and claws black. Wings 8,8 mm long; subhyaline, base yellow; cells C and Sc, apex, an area adjacent to arculus, an area at origin of Rs and a patch at level and including pterostigma and cord, heavily infuscated with brownish black; an indistinct irregular dark wash in cells M and CuA. Halteres brownish yellow. Abdomen blackish brown.

Genitalia. Male hypopygium, Fig. 74.

Remarks. Most similar to *G. elaphus* sp. n. The heavily patterned wings and the uniformly dark abdomen of both sexes and the short bifid outer gonostylus of the male are considered diagnostic for *G. forceps*. It appears that the specimens used for the illustration of the male genitalia and the description of the female are somewhat darker than the holotype. Pro- and mesotibiae are not only completely dark in the female but also almost so in the male from the Kanangra area.

New records. New South Wales: Kanangra Creek (GT); Kanangra Walls (GT).

Distribution. New South Wales (SEN).

Gynoplistia (Gynoplistia) *erinundra* spec. nov. (Figs 27, 42, 75)

Description. Head largely blackish grey; mouth parts greyish brown. Antennae greyish brown to brownish black; 16 segmented; formula 2+2+9+3 in male, 2+2+6+6 in female. Thorax largely shiny black. Coxae shiny black; trochanters brownish yellow; femora brownish yellow with distal 1/4 to 1/2 black; tibiae broadly blackened basally and distally, otherwise pro- and mesotibia greyish brown, metatibia dull greyish yellow; tarsi and claws black. Wings yellowish at base, otherwise hyaline with apex and along some veins, particularly in costal and subcostal cells,

infuscated; two greyish black marks, a spot at origin of Rs and a patch in pterostigma and cord area costal of dm. Halteres greyish yellow. Abdomen of male greyish brown to black, of female brown to black with most of tergite 10 and sternite 8, and with cerci and hypogynial valves brownish yellow.

Dimensions. Wing length, male 7,1 mm, female 6,5-7,4 mm.

Genitalia. Male hypopygium, Figs 27, 42, 75.

Remarks. Very similar to *G. capreolus* sp. n. and *G. gingera* sp. n. The almost straight posterior margin of tergite 9 and the slender bifid outer gonostylus of the male are considered diagnostic characters of *G. erinundra*. The paratype from Delegate River is apparently an aberrant individual with much of the wings blackened and with several crossveins between C and Sc.

Material examined. Holotype ♂: Victoria, Tea Tree Flat, Delegate River, 16.1. 1991, G. Theischinger (ANIC). Paratypes: Victoria: 6 ♀ ♀, same data as holotype (ANIC, GT); 1 ♂, Delegate River, Bendoc Rd, 17.1.1991, G. Theischinger (GT); 1 ♂, Goonderah Creek, Jan. 1991, G. Theischinger (GT).

Distribution. Victoria.

Name. From Erinundra Plateau, in Victoria, where the species has been found; to be treated as a noun in apposition.

***Gynoplistia (Gynoplistia) capreolus* spec. nov. (Fig. 76)**

Description. Head largely black; mouth parts greyish brown. Antennae greyish- to blackish brown; 16 segmented in male, formula 2+2+9+3 or 2+2+10+2; 14-16 segmented in female, formula 2+2+4+(6-8). Thorax with prescutum, scutum and scutellum shiny black, otherwise greyish- to brownish black. Coxae dark greyish brown; trochanters pale yellowish brown; femora with basal 1/3 pale yellowish brown, otherwise black; tibiae, tarsi and claws black. Wings hyaline, infuscated in costal and subcostal cells; two brownish black marks, a spot at origin of Rs and a larger patch occupying pterostigma and cord area costal of dm. Halteres brownish- to greyish yellow. Abdomen of male greyish brown to

black, of female brown with tergite 10, sternite 8, cerci and hypogynial valves paler than the rest.

Dimensions. Wing length, male 5,2-5,8 mm, female 5,3-5,5 mm.

Genitalia. Male hypopygium, Fig. 76.

Remarks. Very similar to *G. erinundra* sp. n. and *G. gingera* sp. n. The short subtriangular lobes of tergite 9 and the slender trifid outer gonostylus are diagnostic characters of male *G. capreolus*.

Material examined. Holotype ♂: Victoria, Rocky Plain, Benambra Road, Jan. 1991, G. Theischinger (ANIC). Paratypes: 3 ♂ ♂, 2 ♀ ♀, same data as holotype (ANIC, GT).

Distribution. Victoria; known only from type locality.

Name. *Capreolus* refers to the similarity of the outer gonostylus to the antlers of a roebuck (*Cervus capreolus* L.) and is to be regarded as a noun in apposition to the generic name.

***Gynoplistia (Gynoplistia) gingera* spec. nov. (Fig. 77)**

Description. Head largely black; mouth parts pale greyish- to blackish brown. Antennae pale greyish- to blackish brown; 16 segmented; formula generally 2+2+8+4, more rarely 2+2+7+5 in male, 2+2+(4-5)+(7-8) in female. Thorax shiny black. Coxae brownish black basally, otherwise yellowish brown; trochanters brownish yellow to yellowish brown; basal 2/5 (profemur) to 4/5 (metafemur) of femora, and metatibia, except for base and apex, brownish yellow to yellowish brown in male; remaining joints and portions of male legs dark greyish brown to black; femora, tibiae, tarsi and claws of female missing in the material available. Wings largely hyaline, apex slightly infuscated; two conspicuous dark greyish brown marks, a spot at origin of Rs and a larger irregular patch in pterostigma and cord area costal of dm. Halteres with stem yellow and knob dark greyish brown in male, more uniformly greyish brown in female. Abdomen largely shiny black; only gonocoxites bright yellowish brown to orange in male; tergites 9 and 10, sternite 8, cerci and hypogynial valves yellowish brown in female.

Dimensions. Wing length, male 5,0-6,4 mm, female 5,4 mm.

Genitalia. Male hypopygium, Fig. 77.

Remarks. Not very similar to any other described species. The wide bilobed apex of tergite 9 and the quadrifid outer gonostylus are considered diagnostic characters of male *G. gingera*.

Material examined. Holotype ♂: New South Wales, Mount Gingera, A.C.T., 4.2.1965, D.H. Colless (ANIC). Paratypes: New South Wales: 7 ♂♂, 1 ♀, same data as holotype (ANIC, GT); 1 ♂, Snowy River, 5500 ft, 12.1.1967, D.H. Colless (ANIC).

Distribution. New South Wales (SEN).

Name. From Mount Gingera, in the Australian Capital Territory; to be treated as a noun in apposition.

***Gynoplistia (Gynoplistia) bickeli*
spec. nov. (Fig. 78)**

Description (♂). Head brownish yellow with some small ill-defined patches of blackish brown; mouth parts pale greyish brown. Antennae with scapus and pedicellus pale yellowish brown, otherwise pale to dark greyish brown; 16 segmented, formula 2+2+9+3. Thorax with prescutum and scutum shiny black, except for three small brownish yellow marks along sutures, and with episternum and laterotergite black, otherwise brownish yellow. Coxae and trochanters brownish yellow, femora brownish yellow with distal 1/6 to 1/5 black; tibiae dull brownish yellow, broadly blackened basally and distally, mesotibia darker than pro- and metatibia; tarsi and claws black. Wings largely glass-clear, apex slightly infuscated; two distinct brownish black marks, a spot at origin of Rs and a large subtriangular patch occupying pterostigma and cord area costal of dm. Halteres yellow. Abdomen brownish yellow with irregular dark patch on tergite 1, and with distal 1/3 to 1/2 of tergite 2, distal 1/2 to 3/4 of tergite 3, much of segment 6, and segments 7 and 8 and hypopygium black.

Dimensions. Wing length 7,4-8,1 mm.

Genitalia. Hypopygium, Fig. 78.

Female unknown.

Remarks. Most similar to *G. elaphus* sp. n. The

extensive black pattern of the thorax including prescutum, scutum, episternum and laterotergite, the abdominal pattern (distal portions of tergites 2 and 3, much of segment 6, segments 7 and 8 and hypopygium black, otherwise brownish yellow) and moderately long gonostyli are considered diagnostic characters of male *G. bickeli*.

Material examined. Holotype ♂: New South Wales, Gloucester Tops, 1280 m, Nothofagus forest, 19.11.-4.12.1988, malaise trap, D. Bickel (AM). Paratype: 1 ♂, same data as holotype (GT).

Distribution. New South Wales (NEN); known only from Gloucester Tops.

Name. *G. bickeli* is dedicated to Dr. D.J. Bickel who is continuously encouraging and supporting my studies of Australian Tipulidae.

***Gynoplistia (Gynoplistia)*
histrionica ALEXANDER**

Gynoplistia (Gynoplistia) histrionica ALEXANDER, Proc. Linn. Soc. N.S.W. 53: 66 (1928).

Primary type. Holotype ♀: New South Wales, Barrington Tops, Jan. 1925, S.U. Zool. Exp. (ANIC); seen.

Published records. New South Wales: Barrington Tops (ALEXANDER 1928: 67).

Known only from female.

Original description. Length 11-11,5 mm; wing 8,5-9,5 mm. Rostrum reddish yellow; palpi dark brown. Antennae 16 segmented, the formula being 2+8+6; scape and basal segment of flagellum obscure yellow, the remaining segments and all pectinations black; tip of first scapal segment more or less infuscated; longest branch about one-half longer than the segment; last branch scarcely one-half of the segment; terminal segment nearly twice the penultimate and evidently representing two fused segments. Head shiny-reddish, with a narrow and more or less indistinct blackened band across the vertex connecting the posterior angles of the eyes. Pronotum shiny-reddish. Mesonotal prescutum and scutum polished black, only the humeral regions of the former restrictedly obscure reddish; surface of prescutum nearly smooth; median region of suture more or less reddish; median area of scutum behind restrictedly red-

dish; scutellum obscure reddish, the parascutella blackened; postnotal mediotergite shiny-reddish. Pleura reddish, with a broad, complete black girdle that includes all of the anepisternum and sternopleurite, leaving the propleura, pteropleurite and meron of the ground-colour; pleurotergite black, narrowly margined dorsally and caudally with reddish. Pleura highly polished, without pubescence. Halteres obscure orange, the knobs vaguely to more strongly infuscated. Legs with the coxae and trochanters orange; femora yellow, the tips broadly and abruptly blackened, the amount subequal on all the legs; tibiae yellow with the bases and apices narrowly but conspicuously blackened, the latter a little more extensively so; tarsi black. Wings with a pale luteous tinge, the base and costal margin more strongly flavous; a restricted but conspicuous dark wing pattern as follows: an irregularly circular spot at origin of Rs, not reaching M; stigma broadly connected with an area on the anterior cord to form a conspicuous triangle; posterior cord and outer end of cell 1st M2 more narrowly seamed; wing tip broadly paler brown, including almost all of cell M1; cell Cu1 dusky, including pale brown clouds in the basal half of cell Cu and as a broad diffuse marginal cloud on the distal section of Cu1; veins dark brown, the prearcular veins yellow. Macrotrichia abundant, including close series on the radial veins. Venation: Rs angulated at origin; R2+3+4 very short, the basal section of R5 correspondingly lengthened; cell R3 at margin very wide; cell M1 a little shorter than its petiole; m-cu at near midlength of cell 1st M2. Abdomen shiny reddish yellow, conspicuously variegated with shiny black on the lateral margins of segments 2 and 3; dorsum of tergites 3 to 6 more or less blackened; sternites more or less blackened, especially laterally, the caudal margins narrowly yellowish. Ovipositor very elongate, the tergal valves bright reddish horn-colour, nearly straight, the tips gently upcurved.

Remarks. Possibly closest to *G. bickeli* sp. n. The yellow abdomen with the lateral margins of segments 2 and 3 and the dorsum of tergites 3-6 more or less blackened, appears diagnostic for female *G. histrionica*.

New records. None.

Distribution. New South Wales (NEN); known only from Barrington Tops.

Gynoplistia (Gynoplistia) elaphus spec. nov. (Fig. 79)

Description (♂). Head dorsally brownish black; back, front and ventral side of head including rostrum yellow; mouth parts greyish yellow to greyish brown. Antennae with scapus, pedicellus and first and second flagellar segments, except for the flabella, yellow with irregular and ill-defined darker patches, otherwise greyish- to blackish brown; 16 segmented, formula 2+2+8+4. Thorax with prescutum and anepisternum largely shiny black, otherwise yellow. Coxae and trochanters yellow; profemur yellow with distal 1/6 black, protibia greyish yellow with basal 1/6 and distal 1/4 blackened, protarsus and claws brownish black; other legs missing. Wings largely glass-clear, apex slightly infuscated; two conspicuous brownish black marks, a small spot at origin of Rs and a large subtriangular patch occupying pterostigma and cord area costal of dm. Halteres yellow. Abdomen largely yellow; an irregular transverse patch in distal half of tergites 2 and 3; sides of segments 2 and 3, segments 7-9 and hypopygium black.

Dimensions. Wing length 6,8 mm.

Genitalia. Hypopygium, Fig. 79.

Female unknown.

Remarks. Most similar to *G. bickeli* sp. n. The reduced black pattern of the thorax including prescutum and anepisternum only, the abdominal pattern (apical half of tergites 2 and 3, sides of segments 2 and 3, segments 7-9 and hypopygium black, otherwise yellow) and the great length of the outer gonostylus are considered diagnostic characters of male *G. elaphus*.

Material examined. Holotype ♂: New South Wales, Mount Kaputar, Bark Hut, 18.11.1990, yellow pan, D.J. Bickel (AM).

Distribution. New South Wales (NEN); known only from Mt Kaputar.

Name. *Elaphus* (= Latinized Greek word for "deer") refers to the antler-like outer gonostylus.

***Gynoplistia (Gynoplistia) fumipennis* group (Figs 17, 43, 80, 81)**

Definition. Antennae 16-17 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 43): segment 9 (s9) undivided, ventrally with posterior margin slightly concave; gonocoxites (ge) with substantial hairy mediobasal lobe and with prominent dorsal (dl) and ventral lobe (vl); only one pair of distally widened flipper-shaped gonostyli (g); aedeagal complex with a small and a large element (lae), possibly including interbase, each side of the long slender trifid aedeagus (ae).

Distribution in Australia. South-eastern.

Australian species:

G. fumipennis WALK.

G. variabilis ALEX.

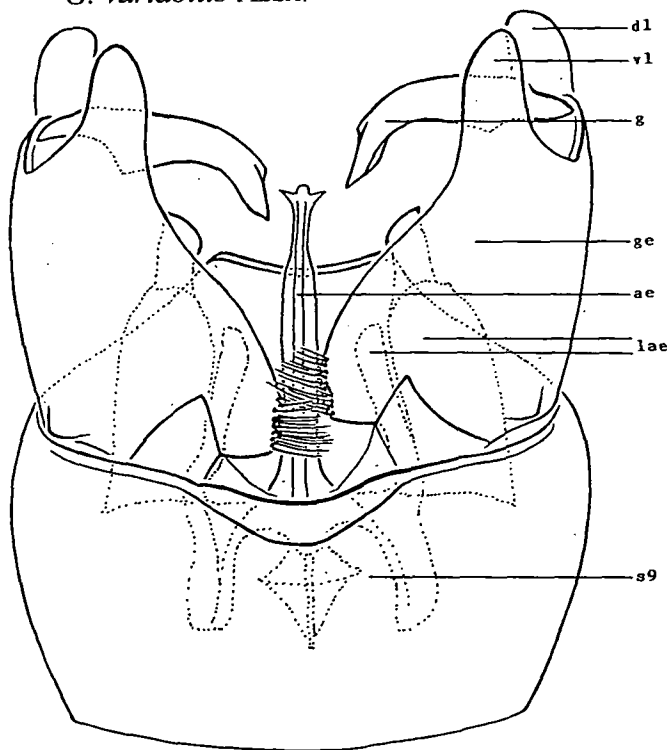


Fig. 43. *Gynoplistia (Gynoplistia) fumipennis fumipennis* WALKER, male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; g = gonostylus; ge = gonocoxite; lae = lateral elements of aedeagal complex; s9 = segment 9; vl = ventral lobe of gonocoxite.

***Gynoplistia (Gynoplistia) fumipennis* WALKER (Figs 17, 43, 80)**

Remarks. Very similar to *G. variabilis* ALEX. Black femora (both sexes) and the comparatively short branches of the aedeagus (male) are apparently diagnostic characters of *G. fumipennis*.

The following three subspecies are recognized:

G. f. bifasciata ALEX.

G. f. fumipennis WALK.

G. f. pammelas ALEX.

***Gynoplistia (Gynoplistia) fumipennis fumipennis* WALKER (Figs 17, 43, 80)**

Gynoplistia fumipennis WALKER, Insecta Saundersiana, Part 3: 448 (1856).

Gynoplistia claripennis ALEXANDER, Ann. Mag. nat. Hist. (9) 8: 560 (1921).

Gynoplistia (Gynoplistia) claripennis subinfusca ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 69 (1929).

Primary types. Holotype ♀ of *G. fumipennis* WALKER: Tasmania (but no locality data on labels) (BMNH); seen. Holotype ♂ of *G. claripennis* ALEXANDER: Tasmania, Mount Wellington, 1300-2300 ft, 15.1.-6.2.1913, R.E. Turner (BMNH); seen. Holotype ♂ of *G. claripennis subinfusca* ALEXANDER: Tasmania, Hobart, 31.10.1915, C. Cote (NMNH); seen; almost completely destroyed and lost.

Published records. Tasmania: "Van Diemen's Land" (WALKER 1856: 448); Geeveston; Hobart; Mt Wellington (all ALEXANDER 1929: 69); Mt Wellington, 1300-2300 ft (ALEXANDER 1921: 561).

Genitalia. Male hypopygium, Figs 17, 43, 80.

Remarks. Very similar to both *G. fumipennis bifasciata* ALEX. and *G. fumipennis pammelas* ALEX. Scarcely patterned wings which are - at least partly - rather clear (male) or strongly infuscated all over (female) are considered diagnostic for *G. f. fumipennis*.

New records. Victoria: Otway Ranges, Lavers Hill (MV); Otway Ranges, Turtons Pass (MV).

Tasmania: Eaglehawk Neck (ANIC); nr Wilmot (ANIC).

Distribution. Victoria, Tasmania.

***Gynoplistia (Gynoplistia)*
fumipennis bifasciata ALEXANDER**

Gynoplistia claripennis bifasciata ALEXANDER, Ann. Mag. nat. Hist. (10) 8: 164 (1931).

Primary type. Holotype ♂: New South Wales, Condor Creek, Canberra, A.C.T., 15.11.1929, G.F. Hill (MV); seen.

Published records. New South Wales: Condor Creek, Canberra, A.C.T. (ALEXANDER 1931: 164).

Previously known only from male.

Description of female. Head black; mouth parts greyish brown. Antennae greyish brown; 16 segmented, formula 2+2+6+6. Thorax dorsally shiny black; pleura black, largely pruinose; coxae black, pruinose; trochanters greyish brown to black; femora with distal 1/2 to 2/3 black, otherwise yellowish to greyish brown; tibiae, tarsi and claws black, only metatibia with white to whitish yellow subapical ring occupying 1/4, or slightly more, length of segment. Wings 8,0-9,2 mm long; largely hyaline with cells C and Sc greyish yellow; a spot at origin of Rs, a band including pterostigma and cord brownish black and apex slightly infuscated. Halteres yellowish grey, the knob markedly darker than the stem. Abdomen black, the cerci somewhat paler than the rest.

Genitalia. Male hypopygium much as in *G. f. fumipennis* WALK.

Remarks. Very similar to both *G. f. fumipennis* WALK. and *G. fumipennis pammelas* ALEX. Largely hyaline, distinctly patterned wings are apparently diagnostic for *G. fumipennis bifasciata*.

New records. New South Wales: Alpine Creek, Snowy Mts Hwy (ANIC); Lee's Spring, A.C.T. (ANIC); Perisher Ck, 1500 m, Mt Kosciusko (GT); Thredbo Village, 1360 m (ANIC). Victoria: 18 mi. E of Lake Mountain, 3100 ft (ANIC); 12 km SE Merrijig, Howqua River (MV).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia)*
fumipennis pammelas ALEXANDER,
stat. nov.**

Gynoplistia (Gynoplistia) pammelas ALEXANDER, Proc. Linn. Soc. N.S.W. 53: 67 (1928).

Primary type. Holotype ♀: New South Wales, Barrington Tops, Jan. 1925, S.U. Zool. Exp. (ANIC); seen.

Published records. New South Wales: Barrington Tops (ALEXANDER 1928: 68).

Known only from female.

Original description. Length about 11,5 mm; wing 9,5 mm. Head and appendages entirely black. Antennae 16 segmented, the formula being 2+2+7+5; longest branch about two and one-half times the segment; branch of the ninth flagellar segment about one-half the segment; terminal segment enlarged, approximately twice as long as the penultimate. Mesonotum highly polished, black, with the impressions subobsolete; pleura with a heavy grey pubescence, especially the ventral pleurites. Legs with the coxae heavily pruinose; remainder of legs black; posterior tibiae with a conspicuous snowy band at approximately its own length, or a little less, from the tip. Wings with a strong dusky tinge, the costal region still darker, two conspicuous dark brown areas, a quadrate one at origin of Rs, not attaining M, and a conspicuous transverse band extending from the stigma to m-cu, broadest on the anterior cord, the centre of cell 1st M2 pale; wing tip a little more infused; veins brownish black. Macrotrichiae relatively abundant, on the radial veins except R1+2 and the outer end of R3; a series of about 15 on the distal two-thirds of Rs; no macrotrichiae on M1+2, M2 or M3. Venation: Sc relatively short, Sc2 at the tip of Sc1, both ending opposite the fork of Rs; Rs relatively long, weakly angulated at origin; R4 sinuous, on outer half deflected strongly caudad; cell M1 relatively short, subequal to its petiole. Halteres black. Abdomen shiny-black, with very slight greenish reflections; ovipositor black.

Remarks. Very similar to *G. fumipennis bifasciata* ALEX. and *G. f. fumipennis* WALK. Strongly infuscated and even darker patterned

wings appear to be diagnostic for female *G. fumipennis pammelas*.

New records. New South Wales: Cockerawombeebea Ck (GT); Gloucester Tops, 1280 m (GT); Lorien Ref., 3 km N Lansdowne nr Taree (GT); Ulong, eastern Dorrigo (AM).

Distribution. New South Wales (NEN).

Gynoplistia (Gynoplistia) variabilis ALEXANDER (Fig. 81)

Gynoplistia (Gynoplistia) variabilis ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 67 (1929).

Primary type. Holotype ♂: New South Wales, Wentworth Falls, Blue Mountains, 2844 ft, 18.11.1921, A. Tonnoir (ANIC); seen.

Published records. New South Wales: Wentworth Falls, Blue Mts, 2844 ft (ALEXANDER 1929: 68). Victoria: Ferntree Gully (ALEXANDER 1929: 68).

Genitalia. Male hypopygium, Fig. 81.

Remarks. Very similar to *G. fumipennis* WALK. Bicoloured (black and yellow) femora (both sexes) and the comparatively long branches of the aedeagus (male) are considered diagnostic for *G. variabilis*. Even individuals from the same localities may vary considerably in wing colouration and pattern.

New records. New South Wales: foot of Cathedral Rock near Ebor (GT); Katoomba (AM); Minnamurra Falls SE of Mittagong (MV); Mt Tomah, Blue Mts (AM); Mt Wilson, Blue Mts (AM).

Distribution. New South Wales (NEN, SEN), Victoria.

Gynoplistia (Gynoplistia) heroni group (Figs 11a, 28, 44, 82, 83)

Definition. Antennae 16-17 segmented; those of male with flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present; wing pattern light and restricted. Male hypopygium (Fig. 44): segment 9 (s9) undivided, ventrally with V-shaped excision; gonocoxite with dorsal lobe (dl) prominent; interbase (i) strongly developed; two pairs of rather simple gonostyli (ig, og) subequal in

length; aedeagal complex with one slender element (lae) each side of the moderately long bottle-shaped aedeagus (ae).

Distribution in Australia. Eastern (excluding Tasmania).

Australian species:

G. heroni ALEX.

G. paluma sp. n.

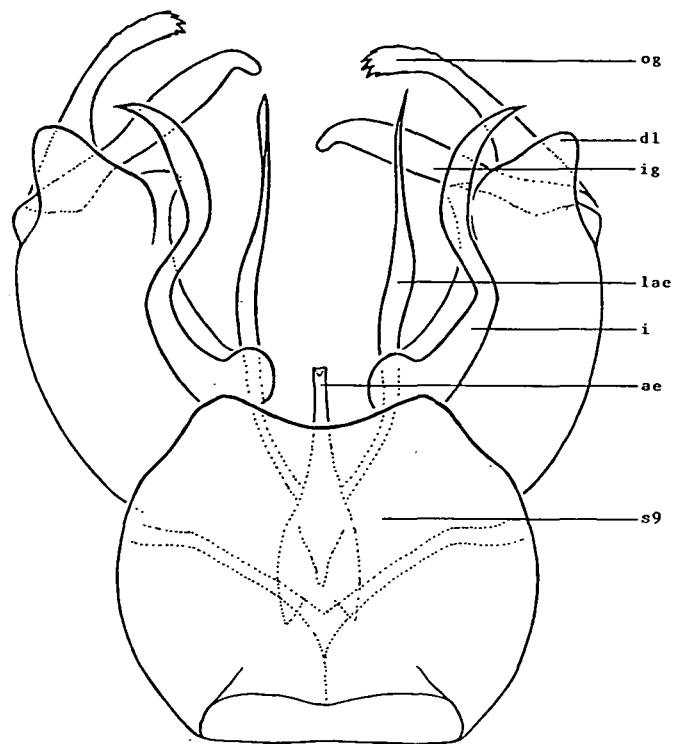


Fig. 44. *Gynoplistia (Gynoplistia) paluma* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; i = ?interbase; ig = inner gonostylus; lae = lateral element of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Gynoplistia) heroni ALEXANDER (Figs 11a, 82)

Gynoplistia (Gynoplistia) heroni ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 70 (1929).

Primary type. Holotype ♂: New South Wales, Brooklana, eastern Dorrigo, ca. 2000 ft, 28.4.1928, W. Heron (NMNH); seen.

Published records. New South Wales: Brooklana, eastern Dorrigo, ca. 2000 ft (ALEXANDER 1929: 71).

Previously known only from male.

Description of female. Head including mouth parts greyish- to brownish yellow. Antennae greyish yellow to pale greyish brown; 16 segmented, without flabella, only segments 3-7 ventrally slightly protuberant. Thorax dorsally largely greyish- to dull brownish yellow; a dark brownish grey longitudinal stripe across the more dorsal portion of pleura, ventral portion of pleura pale greyish- to whitish yellow. Coxae and trochanters pale greyish- to whitish yellow; femora greyish yellow to yellowish brown with distal 1/6 to 1/5 greyish black; pro- and mesotibia yellowish grey with darker apex; metatibia greyish brown with basal 1/4 white; pro- and mesotarsus and claws greyish brown; metatarsus white, claws greyish brown. Wings 6,0 mm long; hyaline, with faint brownish grey tint; two extensive brownish grey patches, one at origin of Rs and one occupying cord area including bscu. Halteres yellowish grey. Abdomen: tergite 1 largely brown; tergites 2-7 basally and apically greyish yellow, otherwise greyish to blackish brown; all corresponding sternites dull greyish yellow; terminal segments greyish to blackish brown except for the cerci and hypogynial valves which are yellowish to pale greyish brown.

Genitalia. Male hypopygium, Fig. 82.

Remarks. Very similar to *G. paluma* sp. n. The narrow bilobed apex of tergite 9 is apparently diagnostic for male *G. heroni*.

New records. Queensland: Buderim, Mountain Creek (ANIC). New South Wales: 10 mi. N of Batemans Bay (ANIC); Brooklana, eastern Dorrigo, ca. 2000 ft (NMNH); 5-7 km NE of Harrington (GT); Lorient Ref., 3 km N Lansdowne nr Taree (GT); Macquarie Rivulet (GT); Porter's Dam Road, 16 km NW of Milton (ANIC); Starrs Creek, Lansdowne State Forest NE Taree (GT).

Distribution. Queensland (SEQ), New South Wales (NEN, SEN).

***Gynoplistia (Gynoplistia) paluma* spec. nov. (Figs 28, 44, 83)**

Description. Head including mouth parts greyish yellow to pale yellowish brown. Antennae with scapus and pedicellus greyish yellow in

both sexes; basal portion of flagellar segments 1 and 2 of male greyish yellow, flabella of flagellar segments 1 and 2 and remainder of flagellum greyish to blackish brown; 16 segmented; formula 2+2+9+3 in male; in female flabellum of first flagellomere hardly developed, formula 2+2+5+7. Thorax dorsally pale yellowish- to greyish brown; a dark brownish grey longitudinal stripe across the more dorsal portion of the pleura, ventral portion of pleura pale greyish yellow. Coxae and trochanters pale greyish yellow; femora greyish yellow to pale yellowish brown with distal 1/6 greyish black; pro- and mesotibia yellowish grey with somewhat darker apex, metatibia greyish black with basal 1/4 to 1/3 white; pro- and mesotarsus and claws greyish brown; metatarsus white, claws greyish brown. Wings hyaline; two brownish grey patches, more extensive in female than in male, one at origin of Rs and one occupying cord area including bscu; pterostigma brownish- to greyish black. Halteres dull yellowish grey. Abdomen: tergite 1 largely greyish brown; tergites 2-7 basally and apically pale greyish yellow, greyish- to brownish black in between; sternites of male with dark areas less extensive than in tergites, sternites of female just pale; terminal segments greyish- to brownish black except for gonocoxites of male and cerci and hypogynial valves of female which are greyish yellow to yellowish brown.

Dimensions. Wing length, male 5,0-5,5 mm, female 5,5-5,8 mm.

Genitalia. Male hypopygium, Figs 28, 44, 83.

Remarks. Very similar to *G. heroni* ALEX. The wide bilobed apex of tergite 9 is apparently diagnostic for male *G. paluma*.

Material examined. Holotype ♂: Queensland, Paluma, 900 m, 9-14.1.1989, malaise, H. and A. Howden (AM). Paratypes: Queensland: 2 ♂♂, 6 ♀♀, same data as holotype (AM, ANIC, GT); 1 ♂, Bellenden Ker Range, 1 km S of Cable Tower 6, 500 m, rainforest, 17.10.-5.11.1981, malaise trap, Earthwatch/Queensland Museum (UQ); 1 ♀, Birthday Creek, 6 km NW by W of Paluma, 25.9.1980, malaise trap, D.H. Colless (ANIC); 1 ♀, Mount Edith Forest Road, 1,5 mi. off Danbulla Road, 6.5.1967, D.H. Colless (ANIC); 1 ♂, 18 km N of Ravenshoe, nr The

Craters, 28.11.1981, at light, D.H. Colless (ANIC).

Distribution. Queensland (NEQ).

Name. From Paluma, in north-eastern Queensland; to be treated as a noun in apposition.

***Gynoplistia (Gynoplistia)*
hotooworry group (Figs 15, 45, 84)**

Definition. Antennae of male 17 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 45): segment 9 (s9) undivided, with very wide posteroventral excision; gonocoxites (ge) very stout, almost conical; only one pair of small tapered gonostyli (g); aedeagal complex with only one very large element (lae) each side of the long slender, apically bifid aedeagus (ae).

Distribution in Australia. North-eastern.

Only one Australian species:

G. hotooworry sp. n.

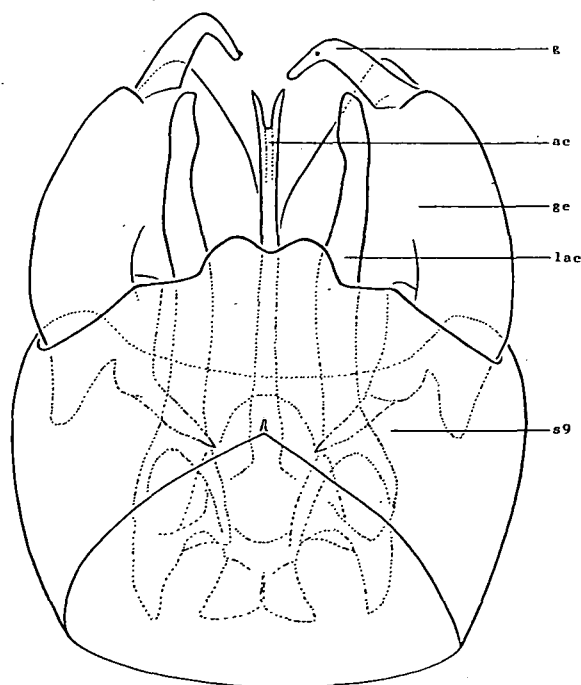


Fig. 45. *Gynoplistia (Gynoplistia) hotooworry* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; g = gonostylus; ge = gonocoxite; lae = lateral element of aedeagal complex; s9 = segment 9.

***Gynoplistia (Gynoplistia)*
hotooworry spec. nov. (Figs 15, 45, 84)**

Description. Head largely black; rostrum grey; mouth parts greyish yellow to yellowish grey. Antennae greyish yellow to yellowish grey; 17 segmented, formula 2+2+9+4 in male, 2+2+7+6 in female. Thorax greyish brown to brownish black. Coxae and trochanters greyish brown; femora brownish grey to greyish black with distal 1/2 of profemur, apical 1/5 of mesofemur and apex of metafemur greyish yellow to grey in male, black with only distal 1/2 of profemur greyish yellow and apex of mesofemur and metafemur barely brightened to yellowish grey or grey in female; protibia yellow, mesotibia yellowish grey, metatibia grey with apex black; basitarsus and second tarsal segment yellow in foreleg of male, only basitarsus yellow in foreleg of female, basitarsus of midleg yellowish grey in both sexes, tarsi otherwise, and claws dark greyish brown to black. Wings largely clear; a black spot at origin of Rs, a very large black oval patch in cord area and a small infuscation at about 2/3 length of A1. Halteres grey with stem lighter than knob. Abdomen greyish black to black; female with tips of cerci and hypogynial valves brownish yellow.

Dimensions. Wing length, male 8,7 mm, female 10,8-13,5 mm.

Genitalia. Male hypopygium, Figs 15, 45, 84.

Remarks. Not similar to any other described species. The apically brightened femora and the well defined large black oval wing patch are considered diagnostic for *G. hotooworry*.

Material examined. Holotype ♂: New South Wales, 28°24'S/153°17'E, 1 km E of Mt Warning, 500 m, 22.11.1976, I.F.B. Common and E.D. Edwards (ANIC). Paratypes: Queensland: 1 ♀, Mt Glorious, 16.1.1972, G. Monteith (UQ); 1 ♀, Mt Windsor Tableland, NW of Mossman, 30.12.1980, M.S. and B.J. Moulds (ANIC).

Distribution. Queensland (NEQ, SEQ), New South Wales (NEN).

Name. Hotooworry (= Australian Aboriginal word for "cloud") refers to the large dark wing patch.

Gynoplistia (Gynoplistia) kaoota group (Figs 39, 46, 85)

Definition. Antennae of male 17-18 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 46): segment 9 (s9) undivided, with wide U-shaped posteroventral excision; gonocoxite slender with dorsal lobe (dl) prominent; two pairs of rather pointed gonostyli (ig, og); aedeagal complex with a long spear-shaped and a short bifid element (lae) each side of the short tapered aedeagus (ae).

Distribution in Australia. South-eastern (Tasmania only).

Only one Australian species:
G. kaoota sp. n.

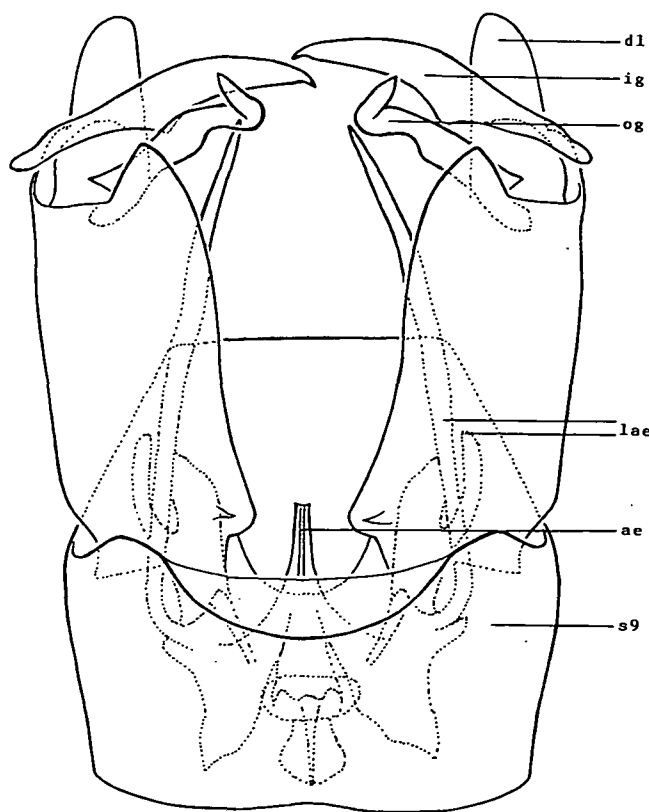


Fig. 46. *Gynoplistia (Gynoplistia) kaoota* sp. n., male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; ig = inner gonostylus; lae = lateral elements of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Gynoplistia) kaoota spec. nov. (Figs 39, 46, 85)

Description (♂). Head largely black; mouth parts greyish- to blackish brown. Antennae greyish- to blackish brown; 17-18 segmented, formula 2+2+10+3, 2+2+10+4 or 2+2+11+3. Thorax with prescutum, scutum, scutellum and mediotergite shiny black, and black between spiracle and wing base, otherwise largely blackish grey (pruinose). Coxae blackish grey (pruinose); trochanters black; femora yellowish brown with distal 1/5 to 1/4 black; tibiae yellowish- to greyish brown, distinctly darkened apically; tarsi and claws greyish brown to black. Wings hyaline, not very clear, infuscated mainly along the longitudinal veins; three brownish black marks including a patch just distal to the arculus, a spot at origin of Rs and a patch in pterostigma and cord area. Halteres pale to dark greyish brown. Abdomen largely dark greyish brown to blackish grey; gonocoxites pale yellowish brown.

Dimensions. Wing length 9,0-11,0 mm.

Genitalia. Hypopygium, Figs 39, 46, 85.

Female unknown.

Remarks. Not similar to any other described species. The long slender spear-shaped lateral element of the aedeagal complex is considered diagnostic for male *G. kaoota*.

Material examined. Holotype ♂: Tasmania, SW, Arthur Plains, 6.2.1965, Neboiss (MV). Paratypes: Tasmania: 6 ♂♂, same data as holotype (GT, MV); 1 ♂, same locality, 2.2.1965, Neboiss (MV); 1 ♂, Crossing Ck, 6.2.1966, C. McCubbin (MV).

Distribution. Tasmania.

Name. Kaoota (= Australian Aboriginal word for "dusk") refers to the sombre colours.

Gynoplistia (Gynoplistia) leai group (Figs 10b, 23, 47, 86-89)

Definition. Antennae 16-18 segmented; those of male with flabella of basal two flagellar segments not aligned with the more distal flabella; female antennae without flabella. Wing cell M1 absent; dark wing pattern heavy and extensive.

Male hypopygium (Fig. 47): segment 9 (s9) undivided, with wide and deep V-shaped posteroventral excision; gonocoxites (ge) posteroventrally very wide or with medially directed lobe; two pairs of gonostyli (ig, og); aedeagal complex rather complicated with several (mostly three) elements (lae), possibly including interbase, each side of the short, tapered aedeagus (ae).

Distribution in Australia. South-eastern (Tasmania only).

Australian species:

G. krangalang sp. n.

G. leai ALEX.

G. nevoissi sp. n.

G. tenuistylus ALEX.

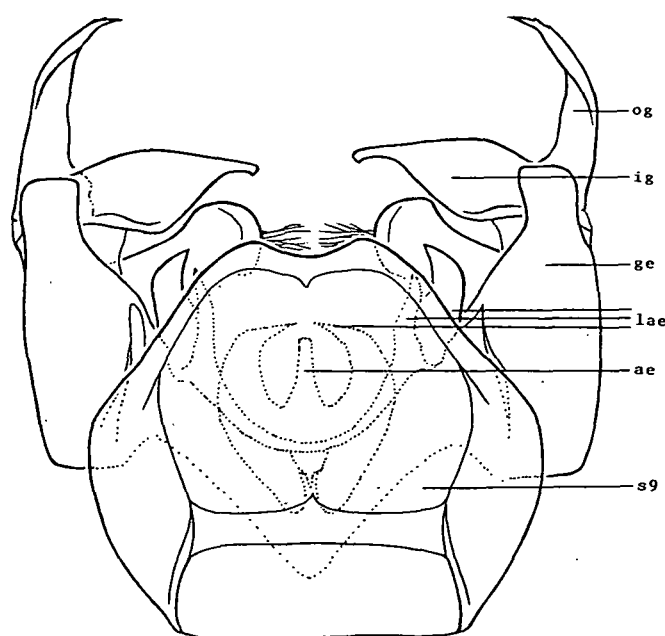


Fig. 47. *Gynoplistia (Gynoplistia) krangalang* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; ge = gonocoxite; ig = inner gonostylus; lae = lateral elements of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Gynoplistia) leai (ALEXANDER) (Figs 10b, 86)

Limnophila leai ALEXANDER, Rec. S. Aust. Mus. 2: 243 (1922).

Primary type. Holotype ♀: Tasmania, Cradle Mountain, H.J. Carter and A.M. Lea (SAM); not seen.

Published records. Tasmania: Cradle Mountain (ALEXANDER 1922b: 243).

Previously known only from female.

Description of male. Head dark greyish black; mouth parts greyish brown. Antennae dark yellowish- to greyish brown; 16-17 segmented, formula 2+2+10+(2-3). Thorax dorsally shiny black; pleura blackish brown, largely pruinose. Coxae dark greyish brown; trochanters brownish yellow; femora with basal 1/3 to 1/2 brownish yellow, otherwise black; tibiae, tarsi and claws black. Wings 7,2-8,8 mm long; yellowish subhyaline, the base brighter, cells C and Sc brownish yellow; three incomplete cross-bands and apex blackish grey; the basal band occupying the bases of cells R and M; the second band occupying the level of the origin of Rs, appearing as a large blotch at origin of Rs, a large area in cells M and CuA and a small blotch near the end of cell A1; the third band occupying the level of the cord, extending from pterostigma to the posterior margin, at dm split to include both ends of the cell; veins brownish yellow, dark brown in the infuscated areas. Halteres greyish yellow to greyish brown. Abdomen shiny greyish- to brownish black.

Genitalia. Male hypopygium, Fig. 86.

Remarks. Very similar to all other members of the *G. leai* group. The narrow ventromesal lobe of the gonocoxite and the simply tapered inner gonostylus are considered diagnostic characters of male *G. leai*.

New records. Tasmania: Arthur Plains (MV); Arthur Ra. (MV); Condominion Ck at Scotts Peak Rd, 42°58'S/146°22'E (MV); Gordon R., 1/2 km above Smith R. jn (MV); Huon Plains (MV); Melaleuca, Bathurst Harbour, 43°25'S/146°10'E (ANIC); Melaleuca Ck nr Melaleuca, 45°25'S/146°09'E (MV); Scotts Peak Dam Rd and Clear Ck (GT); Spring R. (MV); Strahan (BPBM).

Distribution. Tasmania.

***Gynoplistia (Gynoplistia)*
tenuistylus ALEXANDER, stat. nov.
(Fig. 87)**

Gynoplistia (Gynoplistia) leai tenuistylus ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 58 (1929).

Primary type. Holotype ♂: Tasmania, Zeehan, Jan. 1924, G.H. Hardy (?QM); not seen. Parts of holotype in NMNH; seen.

Published records. Tasmania: Zeehan (ALEXANDER 1929: 58). Known only from male.

Genitalia. Hypopygium, Fig. 87.

Remarks. Very similar to, but apparently specifically distinct from *G. leai* ALEX.; also similar to *G. nevoissi* sp. n. and *G. krangalang* sp. n. The narrow ventromesal lobe of the gonocoxite and the strongly bowed gonostylus which is constricted at about 1/3 length, are considered diagnostic characters of male *G. tenuistylus*.

New records. None.

Distribution. Tasmania.

***Gynoplistia (Gynoplistia) nevoissi*
spec. nov. (Fig. 88)**

Description (♂). Head greyish- to blackish brown; mouth parts yellowish- to greyish brown. Antennae yellowish- to dark greyish brown; 16 segmented, formula 2+2+10+2. Thorax blackish brown. Coxae yellowish- to greyish brown; trochanters brownish yellow; femora brownish yellow with distal 1/4 to 1/3 greyish- to blackish brown; tibiae, tarsi and claws pale greyish- to blackish brown. Wings hyaline with base greyish yellow and cells C and Sc brownish yellow; three incomplete cross-bands and apex brownish black; first band adjacent to arculus, second band at level and including origin of Rs, third band at level and including pterostigma and cord. Halteres greyish yellow to brownish grey. Abdomen greyish- to blackish brown.

Dimensions. Wing length 4,8-6,0 mm.

Genitalia. Hypopygium, Fig. 88.

Female unknown.

Remarks. Very similar to *G. leai* ALEX.; also similar to *G. tenuistylus* ALEX. and *G. krangalang* sp. n. The lack of a ventromesal lobe of the

gonocoxite is considered diagnostic for male *G. nevoissi*.

Material examined. Holotype ♂: Tasmania, Melaleuca Ck near Melaleuca, 43°25'S/146°09'E, 13.2.1988, sweep net, A. Neboiss (MV). Paratypes: 7 ♂♂, same data as holotype (GT, MV).

Distribution. Tasmania.

Name. *G. nevoissi* is dedicated to Dr A. Neboiss who encouraged me to study Australian tipulids and who is continuously supporting those studies in many ways.

***Gynoplistia (Gynoplistia)*
krangalang spec. nov. (Figs 23,
47, 89)**

Description. Head blackish grey; mouth parts greyish brown. Antennae greyish brown to brownish black; generally 17 segmented in male, formula 2+2+10+3; 16 segmented in female, with flagellomeres 1-8 protuberant but without flabella. Thorax dorsally shiny black; pleura blackish brown, pruinose. Coxae blackish brown, pruinose; trochanters brownish yellow; femora with basal 1/3 to 1/2 brownish yellow, otherwise black, the colours badly defined, particularly in female; tibiae, tarsi and claws black. Wings yellowish subhyaline, base brighter, cells C and Sc brownish yellow; three irregular incomplete cross-bands, in cases interconnected, and apex blackish grey; basal band adjacent to arculus, second band at level and including origin of Rs, third band at level and including pterostigma and cord area. Halteres with stem dull yellow, knob greyish brown. Abdomen of male shiny greyish brown to black; abdomen of female largely greyish brown with cerci and hypogynial valves yellowish- to reddish brown.

Dimensions. Wing length, male 7,3-8,5 mm, female 6,6 mm.

Genitalia. Male hypopygium, Figs 23, 47, 89.

Remarks. Very similar to all other species of the *G. leai* group. The ventromesal lobe of the gonocoxite and the long and wide based, distally narrow, inner gonostylus are considered diagnostic characters of *G. krangalang*.

Material examined. Holotype ♂: Tasmania, 10

mi. E of Strahan, 6.2.1967, E.F. Riek (ANIC). Paratypes: Tasmania: 2 ♂♂, 1 ♀, same data as holotype (ANIC, GT); 1 ♂, 10 mi. E of Strahan, 20.2.1963, I.F.B. Common and M.S. Upton (ANIC); 1 ♂, near Wilmot, 11.1.1948, Key, Carne, Kerr (ANIC).

Distribution. Tasmania.

Name. Krangalang (= Australian Aboriginal word for "crab") refers to the crab-like appearance of the male hypopygium.

Gynoplistia (Gynoplistia) melanopyga group (Figs 4, 16, 48, 90-111)

Definition. Antennae 16-20 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 48): segment 9 (s9) undivided, ventrally with posterior margin straight, slightly undulate, or produced along midline; only one pair of gonostyli (g); aedeagal complex with mostly two differentiated elements (lae) each side of the long and profoundly bifid aedeagus (ae).

Distribution in Australia. South-eastern.

Australian species:

- G. biangri* sp. n.
- G. bimaculata* SKUSE
- G. boomerang* sp. n.
- G. cultrata* ALEX.
- G. cyanea* MACQ.
- G. drekurmi* sp. n.
- G. fulviventrtris* ALEX.
- G. gnamma* sp. n.
- G. kiandra* sp. n.
- G. lowanna* sp. n.
- G. melanopyga* SCHI.
- G. narkale* sp. n.
- G. obscurivena* SKUSE
- G. opima* ALEX.
- G. pallidicosta* ALEX.
- G. yanka* sp. n.

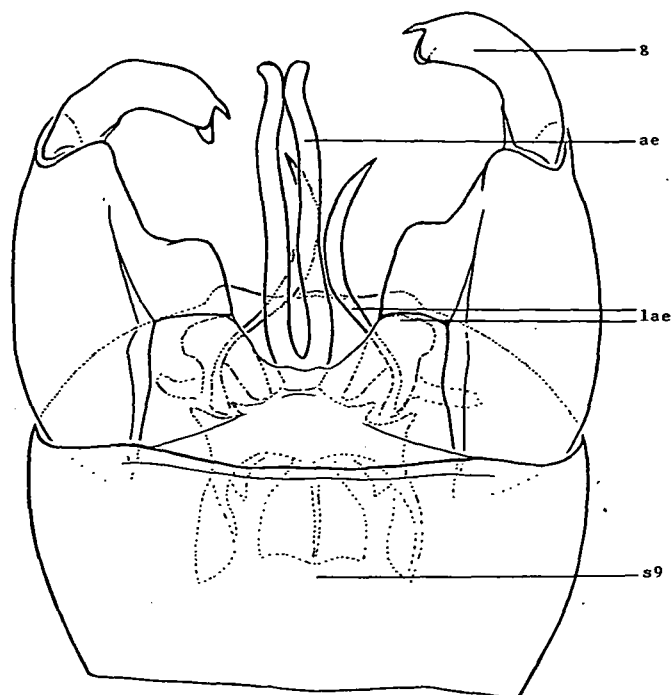


Fig. 48. *Gynoplistia (Gynoplistia) opima* ALEXANDER, male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; g = gonostylus; lae = lateral elements of aedeagal complex; s9 = segment 9.

Gynoplistia (Gynoplistia) melanopyga SCHINER (Figs 4, 90, 93a)

Gynoplistia melanopyga SCHINER, Diptera in: Reise der österreichischen Fregatte Novarra um die Erde in den Jahren 1857, 1858, 1859 unter den Befehlen des Commandore B. von Wüllerstorff-Urbair. Zoologischer Teil 2, 1 (B) (Wien): 39 (1868).

Gynoplistia westwoodi SKUSE, Proc. Linn. Soc. N.S.W. 4: 871 (1890).

Primary types. Holotype ♂ of *G. melanopyga* SCHINER: New South Wales, Sydney (NHMW); seen. Lectotype ♀, by present designation, of *G. westwoodi* SKUSE: New South Wales (ANIC); seen; additionally labeled "Lectotype ♀ *Gynoplistia westwoodi* SKUSE, designated by G. Theischinger 1993".

Published records. New South Wales: no other data (SKUSE 1890: 872); Sydney (SCHINER 1868: 39; SKUSE 1890: 875; ALEXANDER 1923b: 258).

Previous illustrations. SKUSE 1890: Pl. XXIII, figs 34, 36 (wings); SKUSE 1890: Pl. XXIV, fig. 67 (male hypopygium).

Genitalia. Male hypopygium, Figs 90, 93a.

Remarks. Very similar to both *G. opima* ALEX. and *G. pallidicosta* ALEX. The reddish fulvous metafemur which is blackened narrowly at the apex only and the pale cells C and Sc of the wing (both sexes) and the entirely black terminal segments of the abdomen (male) are apparently diagnostic characters of *G. melanopyga*.

New records. New South Wales: Bendora, A.C.T. (ANIC); Blue Mts (ANIC); Blundell's, A.C.T. (ANIC); Bondi (AM); Burrawang Swamp nr Moss Vale (ANIC); 5 km NE of Cambewarra Mt, 455 m (ANIC); Caves Turn Off, Kiandra Rd (ANIC); Clifton (AM); Fitzroy Falls (ANIC); Greenwich (AM); Killara (ANIC); Kosciusko (ANIC); Lee's Ck, Brindabella Ra., A.C.T. (AM); Leura (AM); Martin's Lookout nr Springwood (AM); Mt Tomah, Blue Mts (AM); Mt Wilson (ANIC); Pt Macquarie (AM); 10 km W of Robertson (AM); Sydney (AM, ANIC); Toora (ANIC); Tuross (AM); Wentworth Falls (ANIC); Woodford (ANIC). Victoria: Cobungra (MV); Delegate R., Bendoc Rd (GT); Mt Buller (MV); Sassafras (MV); Thomson R., Thomson Valley Rd (MV).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia) opima*
ALEXANDER, stat. nov. (Figs 16, 48,
91, 93b)**

Gynoplistia (Gynoplistia) westwoodi opima ALEXANDER, Proc. Linn. Soc. N.S.W. 53: 64 (1928).

Primary type. Holotype ♀: New South Wales, Barrington Tops, Jan. 1925, S.U. Zool. Exp. (ANIC); seen.

Published records. New South Wales: Barrington Tops (ALEXANDER 1928: 64).

Previously known only from female.

Description of male. Head shiny black; mouth parts greyish brown to brownish black. Antennae with scapus, pedicellus and base of first and second flagellomeres greyish yellow to greyish brown, otherwise brownish black; 20 segmented, formula 2+2+11+5. Thorax dorsally shiny black; pleura black, largely pruinose. Coxae black, pruinose; trochanters black; femora dark yellow

with distal 1/6 to 1/5 black; tibiae dark to dull yellow with extreme base and distal 1/5 to 1/4 black, the colours not well delimited; tarsi and claws black. Wings 8,2-9,6 mm long; basally vivid yellow, otherwise whitish hyaline with cells C and Sc and apex conspicuously darkened; a heavy brownish black pattern as follows: a postarcular mark in cells R and M broadly connected along cell CuA with a spot near the distal end of cell A1; a large square mark at origin of Rs; a band from costal margin at level and including pterostigma and anterior cord, including also proximal, posterior and distal vein enclosing dm, and bscu and CuA2; a pair of spots or a geminate spot in cell A2 at about midlength and adjoining in cell A1. Halteres greyish brown to black. Abdomen generally with segment 1, much of segment 5, segments 6-8 and a variable portion of segment 9 black, otherwise yellow; segment 5 may be entirely black, segment 9 may be entirely yellow.

Genitalia. Male hypopygium, Figs 16, 48, 91, 93b.

Remarks. Very similar to both *G. melanopyga* SCHI. and *G. pallidicosta* ALEX. The fulvous to reddish-fulvous metafemur and metatibia which are blackened narrowly at the apex only and the infuscated costal and subcostal cells of the wing (both sexes) and largely black terminal abdomen segments of the male (only tip of abdomen yellow) are considered diagnostic characters of *G. opima*.

New records. Queensland: Brisbane (UQ); Camp Mtn (ANIC); Conondale Ra., Bundaroo Ck (GT); Cooroy (UQ); Montville (MV); Salvator Rosa N. P. (GT); Wyberba (UQ). New South Wales: Cathedral Rock N. P. (GT); Mt Kaputar, Bark Hut, 1200 m (GT); Mt Kaputar N. P., 750 m (GT); Lorient Ref., 3 km N Lansdowne nr Taree (GT); Newlands Gap, nr Murrurundi (AM); Mt Werong Fire Rd, 19 km S of Tuglow R. (UQ).

Distribution. Queensland (SEQ), New South Wales (NEN).

***Gynoplistia (Gynoplistia)*
pallidicosta ALEXANDER (Figs 92,
93c)**

Gynoplistia (Gynoplistia) pallidicosta ALEXANDER, Ann. Mag. nat Hist. (10) 8: 164 (1931).

Primary type. Holotype ♂: New South Wales, Kiandra, 26.1.1930, R.J. Tillyard (supposedly in ANIC); not seen; possibly lost.

Published records. New South Wales: Kiandra; Tumbarumba (both ALEXANDER 1931: 165).

Genitalia. Male hypopygium, Figs 92, 93c.

Remarks. Very similar to both *G. melanopyga* SCHI. and *G. opima* ALEX. The only basally brightened metafemur and the very pale costal and subcostal cells of the wing (both sexes) and the little or only moderately darkened terminal segments of the abdomen (male) are considered diagnostic characters of *G. pallidicosta*.

New records. New South Wales: Kosciusko (ANIC); Kosciusko N. P., 36°26'S/148°22'E, Spencers Ck, 1730 m (ANIC); Mt Kosciusko, 4000 ft (ANIC); Upper Murrumbidgee R., 4400 ft (ANIC).

Distribution. New South Wales (SEN).

***Gynoplistia (Gynoplistia) gnamma*
spec. nov. (Figs 94, 97a)**

Description. Head shiny black; mouth parts brownish black. Antennae brownish black to black; 18-19 segmented in male, formula 2+2+(11-12)+(2-3); 17-18 segmented in female, formula 2+2+8+(5-6). Thorax dorsally shiny black; pleura black, largely pruinose. Coxae black, pruinose; trochanters black; femora yellowish brown with distal 1/4 to 1/3 black; tibiae yellowish grey to greyish brown with apex black in male, entirely or almost entirely black in female; tarsi and claws black. Wings hyaline with base dull yellow and costal and subcostal cell greyish brown; a brownish black patch each, at origin of Rs, occupying pterostigma and cord area, and, in female generally, in male often, also adjacent to arculus; apex distinctly infuscated; somewhat infuscated also along all veins; infuscation generally stronger in female than in male. Halteres yellow. Abdomen of male pale yellowish brown with segment 1 black, seg-

ments 4-7 often darkened, particularly laterally and posteriorly, and segment 8 and hypopygium usually blackish brown; abdomen of female much as in male but usually somewhat darker and with tergite 10, sternite 8, cerci and hypogynial valves yellowish brown.

Dimensions. Wing length, male 8,8-10,0 mm, female 10,5-10,7 mm.

Genitalia. Male hypopygium, Figs 94, 97a.

Remarks. Very similar to *G. lowanna* sp. n. and *G. narkale* sp. n. The rather inconspicuous wing pattern and the yellow halteres (both sexes) and the short, strongly bowed gonostylus and the short stout spine on the outer lateral element of the aedeagal complex (male) are considered diagnostic characters of *G. gnamma*.

Material examined. Holotype ♂: New South Wales, 15 miles S Ebor, 3500 ft, 10.11.1967, collector unknown (ANIC). Paratypes: New South Wales: 3 ♂♂, 3 ♀♀, same data as holotype (ANIC, GT); 1 ♂, Bald Rock National Park, 6.11.1984, D.K. Yeates (ANIC); 4 ♂♂, Moonbi, 17.12.1966, N. Dobrotworsky (ANIC); 5 ♂♂, 1 ♀, Washpool Creek, swamp, NNE of Tenterfield, 7.11.1976, G. Theischinger and L. Müller (GT).

Distribution. New South Wales (NEN).

Name. Gnamma (= Australian Aboriginal word for "rock") refers to the rocky habitats where this species was found.

***Gynoplistia (Gynoplistia) lowanna*
spec. nov. (Figs 95, 97b)**

Description. Head shiny black; mouth parts blackish brown. Antennae blackish brown to black; 19-20 segmented in male, formula 2+2+11+(4-5); 18-19 segmented in female, formula 2+2+(7-8)+7. Thorax dorsally shiny black; pleura black, largely pruinose. Coxae black, pruinose; trochanters black; pro- and mesofemur dark yellow with distal 1/4 to 1/3 black; metafemur dark yellow with distal 1/2 black; tibiae darkened at extreme base and blackened for a variable distance distally, yellow in between, brighter in female than in male; tarsi and claws black. Wings hyaline with base bright yellow, cells C and Sc brownish to greyish black and apex strongly infuscated; three large square

marks, one adjacent to the arculus, one at origin of Rs and one occupying pterostigma and cord area; in addition infuscated along most longitudinal veins and along all crossveins with distinct clouds forming along parts of A1 and A2. Halteres greyish to blackish brown. Abdomen of male brownish yellow with segment 1 and terminal segments, beginning from posterior half of segment 5 or from segment 6, including hypopygium, black; abdomen of female much as in male but also sides of tergites 3-5 black, tergite 10 and sternite 8 brownish yellow and cerci and hypogynial valves yellowish- to greyish brown.

Dimensions. Wing length, male 7,8-10,5 mm, female 10,5-14,0 mm.

Genitalia. Male hypopygium, Figs 95, 97b.

Remarks. Very similar to *G. gnamma* sp. n. and *G. narkale* sp. n. The heavy wing pattern, particularly the very dark cells C and Sc (both sexes), and the lateral elements of the aedeagal complex, one very long and S-curved, the other short, wide and hand-shaped and bearing a long bowed wide-based spine (male), are considered diagnostic characters of *G. lowanna*.

Material examined. Holotype ♂: Victoria, Gisborne, 11.12.1965, N. Dobrotworsky (ANIC). Paratypes: Victoria: 1 ♂, Bendigo, 13.11.1964, N. Dobrotworsky (ANIC); 2 ♀♀, same data as holotype (ANIC, GT); 1 ♂, 1 ♀, same locality, 11.12.1965, N. Dobrotworsky (ANIC); 1 ♀, Elphinstone, 3.11.1964, N. Dobrotworsky (ANIC); 1 ♀, Ferntree Gully, 28.9.1930, A.N. Burns (MV); 1 ♂, Grampians, 5.11.1964, N. Dobrotworsky (ANIC); 1 ♂, 1 ♀, Ringwood, 27.11.1924, J.W. Strong (MV). New South Wales: 1 ♂, Belmont, 9.11.1976, K.R. Norris (ANIC); 1 ♂, Cotter River, A.C.T., 9.10.1956, Z. Liepa (ANIC); 1 ♂, Dawson Spring, 1400 m, Mount Kaputar, 8.10.1983, G. Theischinger (GT); 1 ♂, Mount Majura, A.C.T., 20.10.1960, D.H. Colless (ANIC). Queensland: 1 ♂, Jamboree Heights, near Brisbane, 8.3.1981, G. Daniels (ANIC).

Distribution. Queensland (SEQ), New South Wales (NEN, SEN), Victoria.

Name. Lowanna (= Australian Aboriginal word for "beauty") refers to the beautiful colouration of body and wings.

Gynoplistia (Gynoplistia) narkale spec. nov. (Figs 96, 97c)

Description (♂). Head shiny black; mouth parts blackish brown. Antennae blackish brown to black, 19-20 segmented, formula 2+2+(10-11)+(4-6). Thorax dorsally shiny black; pleura black, largely pruinose. Coxae blackish brown, pruinose; trochanters brownish black; femora dark yellow with distal 1/6 to 1/4 black; pro- and metatibia yellow with base narrowly darkened and apex black; mesotibia yellowish grey with base and apex markedly darker; tarsi and claws greyish brown to black. Wings largely hyaline with base bright yellow, cells C and Sc brown and apex hardly to strongly infuscated; three large dark marks, one adjacent to arculus, one at origin of Rs and one occupying pterostigma and cord area; additionally infuscated along most longitudinal veins and all crossveins; more distinct clouds along A1 and A2. Halteres brownish yellow to greyish brown. Abdomen brownish yellow with tergite 1 only laterally or entirely black and terminal segments, beginning from 7 and including hypopygium, black.

Dimensions. Wing length 8,3-9,2 mm.

Genitalia. Hypopygium, Figs 96, 97c.

Female unknown.

Remarks. Very similar to *G. gnamma* sp. n. and *G. lowanna* sp. n. The heavy wing pattern, the evenly bowed gonostylus and the rather straight short spine on the hand-shaped lateral element of the aedeagal complex are considered diagnostic characters of male *G. narkale*.

Material examined. Holotype ♂: New South Wales, 3 km N of Lansdowne, via Taree, 16.10.1988, G. Williams (ANIC). Paratypes: New South Wales: 3 ♂♂, type locality, 18.10.1988, G. Williams (ANIC, GT). Victoria: 1 ♂, Grampians, 1.10.1960, N. Dobrotworsky (ANIC).

Distribution. New South Wales (NEN), Victoria.

Name. Narkale (= Australian Aboriginal word for "thumb") refers to the position of the spine on the hand-shaped lateral element of the aedeagal complex.

***Gynoplistia (Gynoplistia) drekurmi* spec. nov. (Fig. 98)**

Description. Head shiny black; mouth parts dark greyish brown. Antennae dark greyish brown to black; 19 segmented in male, formula 2+2+(9-11)+(4-6); 18 segmented in female, formula 2+2+8+6. Thorax dorsally shiny black; pleura black, largely pruinose. Coxae black, largely pruinose; trochanters black; femora brownish yellow with distal 1/4 to 1/2 black in male, distal 1/3 to 2/3 black in female but with the colours not well defined; pro- and mesotibia black, metatibia greyish brown with base and apex black; tarsi and claws black. Wings hyaline with base dull greyish yellow and costal and subcostal cells and along veins CuA, A1 and A2 infuscated with brownish grey; two greyish black marks, a spot at origin of Rs and a narrow patch occupying pterostigma and cord area costal of dm. Halteres with stem greyish yellow and knob brownish grey. Abdomen yellowish to pale reddish brown with tergite 1 and sides of segment 2 black and tergites 8 and 9 somewhat darkened.

Dimensions. Wing length, male 10,3-10,7 mm, female 11,5 mm.

Genitalia. Male hypopygium, Fig. 98.

Remarks. Similar to *G. bimaculata* SKUSE. The light wing pattern (both sexes), the lateral element of the aedeagal complex which includes two large processes, the outer long and slender (male), and the more uniformly brown abdomen (female) are considered diagnostic for *G. drekurmi*.

Material examined. Holotype ♂: Victoria, Gramians, 5.11.1964, 3N. Dobrotworsky (ANIC). Paratypes: 1 ♂, 1 ♀, same data as holotype (ANIC, GT).

Distribution. Victoria; known only from Gramians.

Name. Drekurmi (= Australian Aboriginal word for "knife") refers to the shape of the outer lateral element of the aedeagal complex.

***Gynoplistia (Gynoplistia) biangri* spec. nov. (Figs 99, 105a)**

Description (♂). Head black; mouth parts blackish brown. Antennae blackish brown; 17 segmented, formula 2+2+9+4. Thorax black, pleura largely pruinose. Coxae and trochanters black, pruinose; remaining leg segments black. Wings hyaline with a greyish black mark of variable size each, at origin of Rs and in cord area costal of dm; pterostigma greyish black. Halteres brownish grey. Abdomen black.

Dimensions. Wing length 8,0-8,6 mm.

Genitalia. Hypopygium, Fig. 99.

Female unknown.

Remarks. Very similar to *G. bimaculata* SKUSE, *G. cyanea* MACQ. and *G. kiandra* sp. n. Entirely black legs and black abdomen are diagnostic characters of male *G. biangri*. *G. biangri* coexisting in the same habitats with *G. cyanea* have a very faint wing pattern whereas populations of what I believe to be *G. biangri* and which were not found coexisting with *G. cyanea*, have a heavier wing pattern.

Material examined. Holotype ♂: New South Wales, Kiandra, 2.11.1960, E.F. Riek (ANIC). Paratypes: New South Wales: 2 ♂♂, same data as holotype (ANIC, GT); 3 ♂♂, Mt Kosciusko, Perisher Creek Fall, Smiggins Hole, 10.11.1960, E.F. Riek (ANIC); 2 ♂♂, Mt Kosciusko, 6800 ft, 7.1.1929, A. Musgrave and H.O. Fletcher (AM). Victoria: 1 ♂, Bogong High Plains, 22.1.1965, N. Dobrotworsky (ANIC); 9 ♂♂, Delegate River, Bendoc Road, 17.1.1991, G. Theischinger (ANIC); 1 ♂, Rocky Plain, Benambra Rd, Jan. 1991, G. Theischinger (ANIC).

Distribution. New South Wales (SEN), Victoria.

Name. Biangri (= Australian Aboriginal word for "night") refers to the dark colouration.

***Gynoplistia (Gynoplistia) bimaculata* SKUSE (Figs 10a, 35, 100-102, 105b)**

Gynoplistia obscurivena SKUSE, Proc. Linn. Soc. N.S.W. 4: 867 (1890); partly.

Gynoplistia bimaculata SKUSE, Proc. Linn. Soc. N.S.W. 4: 875 (1890).

Gynoplistia bimaculata nigrotibialis ALEXANDER, Ann. Mag. nat. Hist. (9) 13: 515 (1924).

Gynoplistia (Gynoplistia) fulvoabdominalis ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 123 (1930).

Gynoplistia nigrotibialis ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 123 (1930).

Gynoplistia (Gynoplistia) nigrotibialis aciculifera ALEXANDER, Ann. Mag. nat. Hist. (12) 4: 595 (1951).

Primary types. Lectotype ♂, by present designation, of *G. bimaculata* SKUSE: New South Wales, Berrima (but no collecting data on labels) (ANIC); seen, badly damaged; additionally labeled "Lectotype ♂ *Gynoplistia bimaculata* SKUSE, designated by G. Theischinger 1993". Holotype ♂ of *G. bimaculata nigrotibialis* ALEXANDER: New South Wales, Blue Mountains, 29.1.1929, E.W. Ferguson (AM); seen. Holotype ♂ of *G. fulvoabdominalis* ALEXANDER: Victoria, Grampians, Oct. 1928, F.E. Wilson (MV); seen. Holotype ♂ of *G. nigrotibialis aciculifera* ALEXANDER: New South Wales, Brown Mtn, 2.12.1930, A.L. Tonnoir (repository unknown); not seen.

Published records. New South Wales: no other data (SKUSE 1890: 868); Berrima (SKUSE 1890: 876); Blue Mts (ALEXANDER 1924: 51); Brown Mtn (ALEXANDER 1951: 59). Victoria: Grampians; Millgrove; Ringwood (all ALEXANDER 1930: 123).

Previous illustrations. SKUSE 1890: Pl. XXIII, fig. 37 (wing); Pl. XXIV, fig. 68 (male hypopygium).

Genitalia. Male hypopygium, Figs 100-102.

Remarks. Very similar to *G. biangri* sp. n., *G. cyanea* MACQ. and *G. kiandra* sp. n. Patterned legs and strongly patterned wings (both sexes), the largely orange abdomen of the male and the largely black abdomen of the female are considered diagnostic characters of *G. bimaculata*. The inner lateral element of the aedeagal complex was found to be very variable in shape and size (missing, short and hardly sclerotized, moderately long and needle-like, very long and subspatulate or spatulate) geographically but often also within the same populations or individuals. However, on the evidence available,

discrete subspecies cannot be distinguished.

New records. New South Wales: Barrington Tops (ANIC, GT); Bendemeer, 2700 ft (ANIC); Blue Mts (ANIC); Boyd R. Crossing, Kanangra Rd (AM); nr Braidwood (ANIC); Bulli (GT); Cathedral Rock (GT); Clyde Mt (ANIC); Clyde Mts nr Braidwood (ANIC); Collaroy, Sydney (ANIC); 30 mi. W of Dorrigo, 4000 ft (ANIC); nr Ebor (GT); N of Ebor (ANIC); 8 mi. E of Ebor (ANIC); Fitzroy Falls, 2500 ft (ANIC); Fitzroy Falls, 3600 ft (ANIC); Florence Head, Little Forest Plateau (GT); Hartley Vale (GT); In Blackfellows Hand Fire Rd and Lisdale-Newnes Rd (AM); Jervis Bay, A.C.T. (ANIC); Kanangra Boyd (GT); Kurragong (AM); Mittagong (ANIC); Morton N. P., nr Sassafras (GT); Mother of Ducks Lagoon nr Guyra (GT); Nelligen (ANIC); New England N. P. (ANIC); Point Lookout (ANIC); Pol Blue, 4900 ft, Barrington Tops (AM); Pond's Ck, E of Armidale (ANIC); Mt Queen Pin, Kanangra Rd, Boyd Plateau (AM); nr Robertson (GT); Rotary Lookout, 23 km NW of Milton (ANIC); Rylstone, 2400 ft (ANIC); Stoney Ck, 77 km N of Windsor (ANIC); Tianjara Falls (GT); Tubrabucca (MV); Tubrabucca, Upper Hunter Dist. (AM). Victoria: Beaconsfield (MV); Buckland's, Gippsland (ANIC); Culloden (ANIC); Gellibrand (ANIC); Latrobe R., Yallourn Dam (MV); Woori Yallock (ANIC). Tasmania: Ulverstone, 4 km NW waterfalls (MV).

Distribution. New South Wales (NEN, SEN), Victoria, Tasmania.

Gynoplistia (Gynoplistia) cyanea MACQUART (Figs 103, 105c)

Gynoplistia cyanea MACQUART, Hist. nat. Ins. Dipt. II: 649 (1835).

Gynoplistia cyanea WESTWOOD, Lond. Edinb. Phil. Mag. (Ser. 3) 6: 280 (1835). (Preoccupied by MACQUART, 1835).

Gynoplistia simplex ALEXANDER, Ann. Mag. nat. Hist. (9) 9: 157 (1922).

Primary types. Types ♂, ♀ of *G. cyanea*: Australia (HOPE, MNP); seen. Holotype ♂ of *G. simplex* ALEXANDER: Tasmania, Mangalore, 19.10.1911, A. White (BMNH); seen.

Published records. Nova Hollandia (MACQUART

1835: 650; WESTWOOD 1835: 280). Tasmania: Mangalore (ALEXANDER 1922a: 157).

Genitalia. Male hypopygium, Fig. 103.

Remarks. Very similar in structure to *G. biangri* sp. n., *G. bimaculata* SKUSE and *G. kiandra* sp. n. Basally yellow femora, heavily patterned wings and the largely black abdomen (both sexes) are considered diagnostic characters of *G. cyanea*. There is marked geographical variation, particularly in the pattern of the femora and even in the structure of the male hypopygium of *G. cyanea*. No attempt is made at this stage to distinguish subspecies.

New records. New South Wales: Alpine Ck (ANIC); Alpine Ck, Kiandra (ANIC); Alpine Ck, Snowy Mts Hwy (ANIC); Alpine Hwy, 25 km S of Cabramurra (ANIC); Bimberi (ANIC); Blundell's, A.C.T. (ANIC); Gibraltar Peak, A.C.T. (ANIC); Mt Gingera, A.C.T. (ANIC); Kiandra (ANIC); Kiandra, 4500 ft (ANIC); Kiandra, 4880 ft (ANIC); Snowy Flats, Brindabella Ra. (AM); Tidbinbilla, A.C.T. (ANIC); Tidbinbilla Rd, A.C.T. (ANIC); Wee Jasper (ANIC); Yarrangobilly (ANIC). Victoria: Elmore (ANIC); Elphinstone (ANIC); Glen Wills (MV); 12 km SE Merrijig, Howqua R. (MV); 17 km SE Merrijig, 8 mile Ck, off Howqua R. (MV); Mt Buffalo, 4500 ft (ANIC); Mt Dandenong (MV); Ravenswood (ANIC); Treasure's, 4060 ft (ANIC). Tasmania: no other data (ANIC); 6 mi. W of Avoca (ANIC); summit of Ben Lomond (ANIC); Cradle Mt (MV); 5 mi. E of Derwent Bridge (ANIC); Derwent R., 2 km NW Derwent Bridge (MV); Devonport (ANIC); 3 mi. NNW of Eaglehawk Neck (ANIC); Geeveston (ANIC); nr Kempron (ANIC); nr Launceston (ANIC); Mt Wellington (ANIC); 4 mi. E of Murdunna (ANIC); National Park (MV); 3 mi. SE of St Marys (ANIC); 10 mi. NE of Waratah. (ANIC).

Distribution. New South Wales (SEN), Victoria, Tasmania.

Gynoplistia (Gynoplistia) kiandra spec. nov. (Figs 104, 105d)

Description (♂). Head shiny black; mouth parts greyish black. Antennae black; 19-20 segmented, formula 2+2+(11-12)+(4-5). Thorax dorsally shiny black; pleura black, largely heavily

pruinose. Coxae and trochanters black, pruinose; femora with basal 1/4 (metafemur) to 1/3 (pro- and mesofemur) yellowish brown, otherwise black; remaining leg segments black. Wings hyaline; two very small greyish black marks, one at origin of Rs and one in cord area costal of r-m; pterostigma greyish black. Halteres yellowish to brownish grey. Abdomen shiny black except for the bright orange to brick red hypopygium.

Dimensions. Wing length 8,4-9,3 mm.

Genitalia. Hypopygium, Fig. 104.

Female unknown.

Remarks. Very similar to *G. biangri* sp. n. and *G. cyanea* MACQ. The patterned legs, the very faint pattern of the wings and the orange to brick red hypopygium are considered diagnostic characters of male *G. kiandra*.

Material examined. Holotype ♂: New South Wales, Kiandra, Alpine Creek, 9.12.1964, N. Dobrotworsky (ANIC). Paratypes: New South Wales: 2 ♂, same data as holotype (ANIC, GT); 2 ♂, Alpine Creek, 24.12.1935, Mackerras (ANIC); 1 ♂, Alpine Creek, 12-13.2.1938, A.L. Tonnoir (ANIC); 2 ♂, Alpine Creek, Snowy Mts Hwy, 9.12.1964, D.H. Colless (ANIC).

Distribution. New South Wales (SEN).

Name. From Kiandra, in south-eastern New South Wales; to be treated as a noun in apposition.

Gynoplistia (Gynoplistia) *obscurivena* SKUSE

Gynoplistia obscurivena SKUSE, Proc. Linn. Soc. N.S.W. 4: 867 (1890); partly.

Primary type. Lectotype ♀, by present designation: New South Wales (ANIC); seen, additionally labeled "Lectotype ♀ *Gynoplistia obscurivena* SKUSE, designated by G. Theischinger 1993".

Published records. New South Wales: no other data (SKUSE 1890: 868).

Previous illustrations. SKUSE 1890: Pl. XXIII, fig. 32 (wing).

Known only from female.

Original description of female. Length of antennae 2,27 mm; expanse of wings 9,64 x 2,54 mm; size of body 11,70 x 1,54 mm. Head black, somewhat shining, densely clothed with black hairs; rostrum, palpi and antennae black, the latter 19 jointed; first 9 flagellar joints with a short branch, the first and last one or two shorter; tenth flagellar joint sometimes with a slight projection on inner side; remaining seven joints sub-elliptical, the terminal one more elongate. Collare dark brown. Thorax black, shining; pleura and coxae with a greyish bloom. Legs black, the femora reddish-fulvous, with a broad ring of black (more than 1/3 the length of femora) at apex. Wings yellowish at base, with three brownish spots, the apex of wing and all the veins infuscated with paler brownish; first spot filling basal ends of basal cells, the second oblong, enveloping basal half of praefurca and not quite reaching posteriorly to fourth longitudinal, third cloud irregularly roundish, extending from costa (at stigma) to inner end of discal cell; costal cell brown; apex of wing clouded from inner end of second posterior cell; veins dark brown. Auxiliary vein reaching costa opposite inner end of second submarginal cell; sub-costal cross-vein near its tip; marginal cross-vein rather indistinct, about its length distant from tip of first longitudinal vein; praefurca moderately long, arcuated at its origin; petiole of first sub-marginal cell very short; anterior branch of second longitudinal vein usually slightly sinuose, about half the length of posterior branch, reaching costa beyond tip of first longitudinal a distance about half the length of stigma; posterior branch arcuated slightly upwards at the extreme tip; second posterior cell more than half the length of third posterior; discal cell longer than wide, the great cross-vein opposite its middle; seventh longitudinal vein sinuated. Halteres brown or black. Abdomen shining violaceous, incisions of the first two or three segments sometimes tinged with, or even the second to fifth segments entirely reddish-fulvous; ovipositor entirely reddish-fulvous, the valves slender, slightly arcuated.

Remarks. Similar to *G. cyanea* MACQ. and *G. bimaculata* SKUSE. From the description of *G. obscurivena* by SKUSE (1890) it is clear that two phenae are included. "Abdomen shiny violaceous,

incisions of the first two or three segments sometimes tinged with reddish fulvous" aptly describes the female of *G. bimaculata* SKUSE. "Abdomen shiny violaceous, the second to fifth segments entirely reddish-fulvous" most probably describes another species from which the lectotype of *G. obscurivena* is designated. A few specimens corresponding to the lectotype of *G. obscurivena* have been collected over the past decades, but no males which can be associated with them. On the evidence available, it appears unlikely that *G. obscurivena* is just a different colour form of *G. bimaculata* SKUSE.

New records. New South Wales: Goonderra Ridge, Royal N. P. (AM); Maroubra (AM); Sydney (AM). Victoria: Seville (MV).

Distribution. New South Wales, Victoria.

Gynoplistia (*Gynoplistia*) *boomerang* spec. nov. (Figs 106, 108a)

Description. Head greyish to blackish brown; mouthparts dark greyish brown. Antennae greyish- to blackish brown; 17-18 segmented in male, formula 2+2+(9-10)+(3-4); 16-17 segmented in female, formula 2+2+7+(5-6). Thorax greyish- to blackish brown, the pleura largely pruinose. Coxae blackish brown, pruinose; trochanters blackish brown; femora with basal 1/5 to 1/3 yellowish brown, otherwise black; tibiae, tarsi and claws black. Wings of male hyaline with only the pterostigma area greyish brown; slightly infuscated at origin of Rs and along cord costal of dm; wings of female very much reduced in size, whitish hyaline to dusky, brown along the veins. Halteres yellowish to pale brownish grey. Abdomen black; only posterior portion of sternite 8, cerci and hypogynial valves of female brown.

Dimensions. Wing length, male 8,1-9,8 mm, female 3,8-4,7 mm.

Genitalia. Male hypopygium, Figs 106, 108a.

Remarks. Similar to *G. cultrata* ALEX. The very wide tergite 9 with the posterior margin almost straight and the boomerang-shaped gonostylus are diagnostic characters of male *G. boomerang*. This is the only Australian species of *Gynoplistia* s. str. of which the female is known

to be brachypterous.

Material examined. Holotype ♂: New South Wales, New England National Park, 4500 ft, 15.10.1966, N. Dobrotworsky (ANIC). Paratypes: New South Wales: 1 ♂, same data as holotype (ANIC); 29 ♂♂, 6 ♀♀, foot of Cathedral Rock, 20-21.11.1990, G. Theischinger and L. Müller (GT); 9 ♂♂, 6 ♀♀, near Ebor, March 1992, G. Theischinger (GT); 1 ♀, New England National Park, 3.1.1978, G. Daniels (UQ); 1 ♂, New England National Park, rain-forest, 11.2.1968, D.H. Colless (ANIC).

Distribution. New South Wales (NEN).

Name. Boomerang refers to the shape of the gonostylus.

***Gynoplistia (Gynoplistia) cultrata* ALEXANDER (Figs 107, 108b)**

Gynoplistia (Gynoplistia) cultrata ALEXANDER, Proc. Linn. Soc. N.S.W. 53: 65 (1928).

Primary type. Holotype ♂: New South Wales, Barrington Tops, Jan. 1925, S.U. Zool. Exp. (ANIC); seen.

Published records. New South Wales: Barrington Tops (ALEXANDER 1928: 66).

Known only from male.

Genitalia. Hypopygium, Figs 107, 108b.

Remarks. Similar to *G. boomerang* sp. n. The slightly bilobed tergite 9 and the gonostylus which is shaped somehow like a pruning-knife are diagnostic characters of male *G. cultrata*.

New records. New South Wales: Barrington Tops (GT); Barrington Tops, 1400 m (GT); Barrington Tops, 5000 ft (AM); Gloucester Tops, 1300 m (GT).

Distribution. New South Wales (NEN).

***Gynoplistia (Gynoplistia) fulviventris* ALEXANDER (Fig. 109)**

Gynoplistia fulviventris ALEXANDER, Ann. Mag. nat. Hist. (9) 9: 156 (1922).

Primary type. Holotype ♂: Tasmania, Mangalore, 25.1.1913, A. White (BMNH); seen.

Published records. Tasmania: Mangalore (ALEXANDER 1922a: 157).

Previously known only from male.

Description of female. Head black; mouth parts greyish brown. Antennae blackish brown; 17 segmented, formula 2+2+8+5. Thorax black. Coxae and trochanters black; pro- and mesofemur brownish yellow with distal 1/4 to 1/3 black; pro- and mesotibia yellowish- to greyish brown with base narrowly and apex broadly (1/4 to 1/3 length of segment) black; pro- and mesotarsi and claws black; hindlegs missing. Wings 9,7 mm long; subhyaline with base yellow; cells C and Sc, a mark adjacent to arculus, a square mark at origin of Rs and a large patch at level and including pterostigma and cord brownish black; strongly and broadly infuscated along M and CuA and along the veins forming dm, more narrowly infuscated along part of A1 and along the more distal veins. Halteres dark greyish brown. Abdomen largely black; basal portions of tergites 2, 3 and 4, lateral margins of tergites 3-8 and sternites 4-7, tergite 10, sternite 8, cerci and hypogynial valves brownish yellow to brown.

Genitalia. Male hypopygium, Fig. 109.

Remarks. Not very similar to any other described species. The toothed gonostylus and the lateral elements of the aedeagal complex the outer of which is directed mesally, are considered diagnostic characters of male *G. fulviventris*. The material listed below is markedly larger (wing length, male 8,3-9,7 mm) than the holotype (wing length 7,2 mm). The antennae of these males are 18 segmented, with formula 2+2+(11-12)+(2-3).

New records. Victoria: Sale (ANIC); Tea Tree Flat, Delegate R. (GT). Tasmania: Lake Sorrell (GT); Little Pine Lagoon (GT).

Distribution. Victoria, Tasmania.

***Gynoplistia (Gynoplistia) yanka* spec. nov. (Figs 110, 111)**

Remarks. Not very similar to any other described species. The dark and pale patterned abdomen, the hooked gonostylus and the aedeagal complex with three elements each side of the rather weak aedeagus are diagnostic characters of male *G. yanka*.

The following two subspecies are recognized:

G. y. yanka ssp. n.

G. y. bilobata ssp. n.

***Gynoplistia (Gynoplistia) yanka*
yanka spec. et subspec. nov. (Fig. 110)**

Description (♂). Head greyish black; mouth parts greyish brown. Antennae pale greyish brown to blackish brown; 18 segmented, formula 2+2+12+2. Thorax dorsally largely dark greyish- to reddish brown; scutellum and mediotergite pale yellowish brown; pleura yellowish- to blackish brown with some pruinescence. Coxae and trochanters yellowish- to pale greyish brown; femora from yellowish- to blackish brown, darker distally but colours not well defined in pro- and mesofemur, somewhat better defined in metafemur; tibiae greyish brown with apex darker; tarsi and claws dark greyish brown to black. Wings hyaline with faint greyish brown tint; a spot at origin of Rs, a patch in cord area, costal and subcostal cells, and along M and CuA more strongly infuscated; pterostigma greyish brown. Halteres with stem greyish yellow and knob brownish grey. Abdomen with tergite 1, posterior portion of tergites 2-5, and more terminal segments brownish black, otherwise yellowish- to greyish brown.

Dimensions. Wing length 9,2 mm.

Genitalia. Hypopygium, Fig. 110.

Female unknown.

Remarks. Very similar to *G. yanka bilobata* ssp. n. The rather straight posterior margin of tergite 9 and the comparatively large apex of the gonostylus are considered diagnostic characters of male *G. y. yanka*.

Material examined. Holotype ♂: Queensland, Beerwah, 8.9.1963, D.C. Wood (QM).

Distribution. Queensland (SEQ); known only from type locality.

Name. Yanka (= Australian Aboriginal word for "tail") refers to the long tail-like lateral element of the aedeagal complex.

***Gynoplistia (Gynoplistia) yanka*
bilobata subspec. nov. (Fig. 111)**

Description (♂). Head greyish black; mouth parts greyish yellow to greyish brown. Antennae with scapus, pedicellus and bases of flagellar segments 1 and 2 pale yellowish- to greyish brown, otherwise dark greyish- to blackish brown; 17 segmented, formula 2+2+11+3. Thorax dorsally largely greyish- to dark reddish brown, scutellum brownish yellow; pleura yellowish- to blackish brown. Coxae and trochanters pale yellowish brown; femora from yellowish- to blackish brown, particularly distal 1/6 darker than the rest; tibiae greyish brown with apex darker; tarsi and claws dark greyish- to blackish brown. Wings hyaline with faint greyish brown tint all over and with two greyish brown marks, one at the origin of Rs and one occupying cord area costal of dm; pterostigma dark greyish brown. Halteres greyish yellow. Abdomen with tergite 1 dark greyish brown, tergites 2-5 basally greyish yellow and distally dark greyish brown (the corresponding sternites more uniformly brown), and terminal segments dark brown.

Dimensions. Wing length 8,1 mm.

Genitalia. Hypopygium, Fig. 111.

Female unknown.

Remarks. Very similar to *G. y. yanka* sp. et ssp. n. The bilobed tergite 9 and the comparatively small apex of the gonostylus are considered diagnostic characters of male *G. yanka bilobata*.

Material examined. Holotype ♂: Queensland, Mullen State Forest, 10.1.1986, G. Theischinger (ANIC).

Distribution. Queensland (SEQ); known only from type locality.

Name. Bilobatus 3 (= Latin for "bilobed"), referring to the shape of tergite 9 of the male.

***Gynoplistia (Gynoplistia)*
tenuifilosa group (Figs 11b, 29,
49, 112, 113)**

Definition. Antennae with flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present; dark wing pattern heavy and extensive. Male hypopygium

(Fig. 49): segment 9 (s9) undivided, with wide U-shaped posteroventral excision; gonocoxites with two dorsal lobes (dl); interbase (i) strongly developed; two pairs of gonostyli (ig, og) subequal in length; aedeagal complex with one slender element (lae) each side of the slender tapered aedeagus (ae).

Distribution in Australia. South-eastern (excluding Tasmania).

Australian species:

G. persephoneia sp. n.

G. tenuifilosa ALEX.

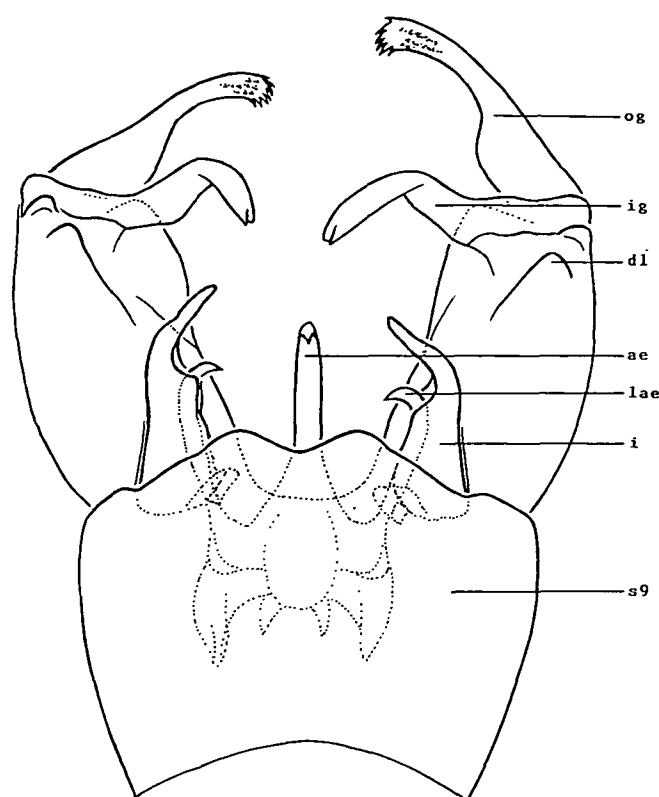


Fig. 49. *Gynoplistia (Gynoplistia) persephoneia* sp.n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; i = interbase; ig = inner gonostylus; lae = lateral element of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Gynoplistia) tenuifilosa ALEXANDER (Fig. 112)

Gynoplistia (Gynoplistia) tenuifilosa ALEXANDER, Ann. Mag. nat. Hist. (10) 8: 161 (1931).

Primary type. Holotype ♂: New South Wales,

Wentworth Falls, Blue Mts, 20-30.10.1930, F.E. Wilson (MV); seen; parts in NMNH.

Published records. New South Wales: Wentworth Falls, Blue Mts (ALEXANDER 1931: 162).

Known only from male.

Genitalia. Hypopygium, Fig. 112.

Remarks. Very similar to *G. persephoneia* sp. n. The simple apex of the inner gonostylus and the particular shape of the interbase are considered diagnostic for male *G. tenuifilosa*.

New records. New South Wales: Fitzroy Falls, 2500 ft (ANIC).

Distribution. New South Wales (SEN).

Gynoplistia (Gynoplistia) persephoneia spec. nov. (Figs 11b, 29, 49, 113)

Description. Head greyish black; mouth parts greyish brown. Antennae greyish- to blackish brown; 17-18 segmented in male, formula 2+2+11+2 or 2+2+11+3; 15-16 segmented in female, formula 2+2+6+5 or 2+2+6+6. Thorax dorsally shiny black; pleura black, pruinose. Coxae black, pruinose; trochanters brownish yellow; pro- and mesofemur with distal 1/2 to 2/3 dark greyish brown to black, otherwise brownish yellow; metafemur with distal 1/3 to 1/2 greyish brown to black, basally brownish yellow; tibiae, tarsi and claws black. Wings whitish hyaline, basal of arcus brownish yellow, cells C and Sc dark yellowish- to greyish brown; a heavy brownish black pattern as follows: a small patch at 1/3 length of cell R; a large patch occupying usually a small central area of Cell M, always a large area of cell CuA and a small area at the distal end of cell A1; a patch at origin of Rs; an extensive cross-band at level and including pterostigma and cord from anterior to posterior wing margin, mostly except the centre of dm; wing tip. Halteres yellowish grey to greyish black. Abdomen of male black, of female black with sternite 8, distal portion of tergite 10, cerci and hypogynial valves dark brownish yellow.

Dimensions. Wing length, male 6,8-7,4 mm, female 6,7-8,5 mm.

Genitalia. Male hypopygium, Figs 29, 49, 113.

Remarks. Very similar to *G. tenuifilosa* ALEX. The slightly bifid apex of the inner gonostylus and the particular shape of the interbase are considered diagnostic for male *G. persephoneia*.

Material examined. Holotype ♂: New South Wales, Styx River, 12 km S of Ebor, 17.10.1973, A. Neboiss (MV). Paratypes: New South Wales: 3 ♂♂, 3 ♀♀, same data as holotype (GT, MV); 3 ♂♂, 12 ♀♀, foot of Cathedral Rock, 21.11.1990, G. Theischinger and L. Müller (ANIC, GT).

Distribution. New South Wales (NEN).

Name. Named after the Greek goddess Persephoneia, wife of Hades.

Gynoplistia (Gynoplistia) vilis group (Figs 10c, 26, 50, 114-118)

Definition. Antennae 17-24 segmented, those of male with flabella of basal three flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 50): segment 9 (s9) undivided, with deep U-shaped posteroventral excision; gonocoxites (ge) ventrally drawn out into a narrow, medially directed spine-like process; two pairs of gonostyli (ig, og) of subequal length; aedeagal complex with a single leaf-shaped element (lae) each side of the short simple bottle-shaped aedeagus (ae).

Distribution in Australia. Eastern.

Australian species:

G. babinda sp. n.

G. davidsoni ALEX.

G. doddi ALEX.

G. vilis (WALK.)

G. wilsonella ALEX.

G. woombye sp. n.

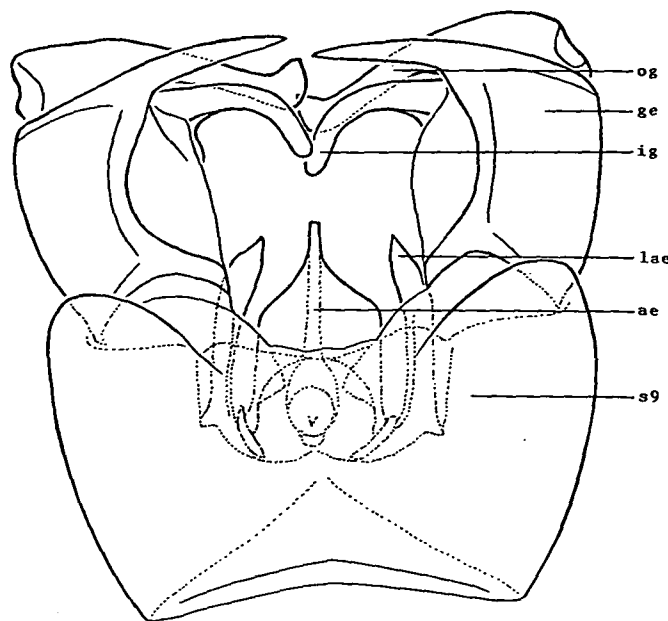


Fig. 50. *Gynoplistia (Gynoplistia) babinda* sp. n., male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; ge = gonocoxite; ig = inner gonostylus; lae = lateral element of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Gynoplistia) vilis (WALKER) (Figs 10c, 114)

Ctenophora vilis WALKER, Ent. Mag. 2: 469 (1835).

Gynoplistes nervosa WESTWOOD, Zool. J. Lond. 5: 447 (1835).

Gynoplistia flavitarsis MACQUART, Mem. Soc. Sci. Agric. Lille, 1849 (2): 316 (12) (1850).

Gynoplistia (Gynoplistia) myallensis ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 127 (1930).

Primary types. Holotype ♂ of *C. vilis* WALKER: New Holland (repository unknown); possibly lost, but see below, under lectotype of *G. nervosa* WESTWOOD! Lectotype ♂, by present designation, of *G. nervosa* WESTWOOD: Australia; attached the following labels: N. Holld, Type WESTW. Prob. also Type WALK. F.W. Edwards t. 19.v.1926; M; M; *Gyn. vilis* WALK. (*Ctenoph.*) *Anopl. nervosa* WESTW. Z. JI;

Gynoplistia WESTW. *vilis* WALK. (*Ctenoph.* WESTW. Phil. Mag. *Anoplistes nervosa* W. Zool. JI); Type Dip.: 66 1/2 *Gynoplistes nervosa* WESTWOOD Hope Dept Oxford; Lectotype ♂ *Gynoplistes nervosa* WESTWOOD 1835, des. G. Theischinger 1991. (Antennae and apex of abdomen on separate cards.) Holotype ♂ of *G. flavitarsis* MACQUART: Tasmania (MNP); seen. Holotype ♂ of *G. myallensis* ALEXANDER: New South Wales, Myall Lakes, 3.9.1922, Nicholson (NMNH); seen.

Published records. New Holland (WALKER 1835: 469); Australasia (WESTWOOD 1835: 448). New South Wales: Myall Lakes (ALEXANDER 1930: 128); Sydney and other localities (SKUSE 1890: 865). Tasmania (MACQUART 1850: 317).

Previous illustrations. WESTWOOD 1835: Tab. XXII, Fig. 10 (wing); Fig. 11 (antenna). MACQUART 1850: Tab. 1, fig. 2 (entire insect). SKUSE 1890: Pl. XXIII, fig. 30 (wing); Pl. XXIV, fig. 65 (male hypopygium).

Genitalia. Male hypopygium, Fig. 114.

Remarks. Somewhat similar to all other species of the *G. vilis* group. The number of antennal segments (18-19 in both sexes) together with the narrow dark patch in the pterostigma and cord area of the wing, the black and brown patterned abdomen (both sexes) and the short- and wide-necked aedeagus (male) are apparently diagnostic characters of *G. vilis*. The colouration of the legs seems remarkably variable. The two basal segments of the metatarsus are pale in the holotype of *G. flavitarsis* MACQ. and in a male from Taree as opposed to the rather uniformly dark metatarsus in the other material.

New records. Queensland: Tamborine (ANIC). New South Wales: Beecroft Peninsula nr Nowra (AM); Berowra (ANIC); nr Ebor (GT); Gosford (ANIC); Greenwich (AM); Lane Cove (AM); Lorient Ref., 3 km N Landsdowne nr Taree (GT); Mt Barrington 1100 ft (ANIC); Myall Lakes (AM); Taree (ANIC); Tarro, Hunter R. (ANIC); Woy Woy (MV).

Distribution. Queensland (SEQ), New South Wales (NEN, SEN), Tasmania.

Gynoplistia (Gynoplistia) babinda spec. nov. (Figs 26, 50, 115, 116a)

Description. Head including mouth parts largely grey. Antennae with scapus and pedicellus dull yellow, otherwise yellowish grey to dark greyish brown; 22 segmented in male, formula 2+3+(16-17)+(2-3); 20-22 segmented in female, the first flagellomere with hardly any flabellum and flabella of the basal (2)-3 flagellomeres almost aligned with the more distal flabella, the formula being arguably 2+3+12+(3-5) or 2+15+(3-5). Thorax greyish brown. Coxae and trochanters dull brownish yellow in male, yellowish- to greyish brown in female; femora dull brownish yellow with dark greyish brown subapical ring; tibiae and tarsi largely yellowish grey to greyish brown, basitarsus of hindleg dull whitish- to greyish yellow. Wings hyaline, slightly suffused with pale greyish white in male, more strongly tinted with grey in female; two greyish brown marks, a spot at origin of Rs and a more extensive irregular narrow patch or a combination of smaller patches in pterostigma and cord area costal of dm; M1+2 no more than 1/4 length of M1. Halteres with stem greyish yellow and knob pale grey. Abdomen greyish brown; base and posterior margin of most tergites appearing dull brownish yellow in male; tergites 9, 10, sternite 8, cerci and hypogynial valves of female greyish to blackish brown.

Dimensions. Wing length, male 9,8-10,3 mm, female 11,6 mm.

Genitalia. Male hypopygium, Figs 26, 50, 115.

Remarks. Very similar to *G. doddi* ALEX. and *G. wooby* sp. n. The comparatively small and narrow dark distal wing mark, the great length of cell M1 and the rather uniformly dull colored abdomen are considered diagnostic characters of *G. babinda*.

Material examined. Holotype ♂: Queensland, The Boulders, Babinda, 10.5.1967, D.H. Colless (ANIC). Paratypes: 1 ♂, 1 ♀, same data as holotype (ANIC, GT).

Distribution. Queensland (NEQ); known only from type locality.

Name. From Babinda, in north-eastern Queensland; to be treated as a noun in apposition.

***Gynoplistia (Gynoplistia)*
davidsoni ALEXANDER (Fig. 116b)**

Gynoplistia (Gynoplistia) davidsoni ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 59 (1929).

Primary type. Holotype ♂: Queensland, "Wilmont", Mount Tamborine, 2000 ft, 2.5.1927, W.H. Davidson (NMNH); seen.

Published records. Queensland: "Wilmont", Mt Tamborine, 2000 ft (ALEXANDER 1929: 60).

Previously known only from male.

Description of female. Head brownish to blackish grey; mouth parts greyish brown. Antennae yellowish grey to blackish brown; 20 segmented, first flagellomere with hardly any flabellum, flabella of first (2)-3 flagellomeres almost aligned with the more distal flabella, formula arguably 2+3+8+7. Thorax dorsally greyish- to blackish brown; pleura greyish brown, pruinose. Coxae greyish brown, pruinose; trochanters brownish yellow; femora brownish yellow with distal 1/4 black, the extreme tip whitened; tibiae brownish black, the base very narrowly whitened; tarsi and claws black, only basal 1/3 of pro- and mesobasitarsus and basal 2/3 of metabasitarsus white. Wings 10,8-11,6 mm long; subhyaline with whitish yellow tinge; cells C and Sc suffused with brownish yellow; a heavy greyish black pattern as follows: a patch adjacent to arculus in cells R and M, continued in M to well beyond level of origin of Rs in cells R and Rs; an extensive cross-band from costal margin over pterostigma, cord and dm but leaving centre of dm pale; more indistinct clouds along A1 and A2 and somewhat infuscated apically. Halteres with stem greyish yellow and knob dark greyish brown. Abdominal tergites 1-9 and sternites 1-8 brownish black; segments 2-7 ringed basally and narrowly apically with yellowish grey producing an annulate appearance; tergite 10 and cerci yellowish brown, hypogynial valves brownish black.

Remarks. Very similar to all other species of the *G. vilis* group. Basally pale basitarsi, heavily patterned wings and the brownish black and pale ringed abdomen are considered diagnostic for *G. davidsoni*.

New records. Queensland: Maleny (ANIC);

Southport (UQ).

Distribution. Queensland (SEQ).

***Gynoplistia (Gynoplistia) doddi*
ALEXANDER (Figs 116c, 117)**

Gynoplistia doddi ALEXANDER, Ann. Mag. nat. Hist. (9) 8: 561 (1921).

Primary type. Holotype ♂: Queensland, Yungaburra, Cairns District, 2500 ft, April 1921, A.P. Dodd (NMNH); seen.

Published records. Queensland: Yungaburra, Cairns Dist., 2500 ft (ALEXANDER 1921: 562).

Previously known only from male.

Description of female. Head greyish black; mouth parts greyish brown. Antennae greyish to brownish yellow; 21 segmented; no flabella, only the basal 3 flagellomeres slightly protuberant. Thorax dorsally greyish- to blackish brown; pleura greyish brown. Coxae greyish brown; trochanters dull greyish yellow; femora pale yellowish brown with distal 1/5 to 1/4 black and extreme apical rim whitish yellow; tibiae with extreme base whitish yellow, otherwise greyish brown to black, darkest apically but colours not well defined; tarsi and claws grey to black, only basitarsus largely pale greyish yellow or white. Wings 9,4 mm long; hyaline, suffused with brownish grey particularly in costal and subcostal cells, between M and CuA and in apical region; three distinct and rather extensive greyish black marks, one adjacent to the arculus, one at origin of Rs and the largest, a square patch occupying cord area including dm and pterostigma. Halteres greyish brown. Abdomen with tergite 1 largely greyish- to blackish brown; tergites 2-5 basally and apically brownish yellow, otherwise brownish black, tergites 6-9 brownish black, corresponding sternites similar but slightly paler, tergite 10 brownish yellow and cerci and hypogynial valves brown.

Genitalia. Male hypopygium, Fig. 117.

Remarks. Very similar to *G. babinda* sp. n. and *G. woombye* sp. n. The large square dark distal wing mark, the short cell M1 and the vividly patterned abdomen are considered diagnostic for *G. doddi*.

New records. Queensland: Wongabel, 8km S

Atherton (GT); Wongabel S. F. (ANIC); Yungaburra (State Forest 452) (ANIC, GT).

Distribution. Queensland (NEQ).

***Gynoplistia (Gynoplistia) wilsonella* ALEXANDER (Fig. 118)**

Gynoplistia (Gynoplistia) wilsonella ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 12 (1930).

Primary type. Holotype ♂: Victoria, Grampians, Oct. 1928, F.E. Wilson (MV); seen.

Published records. Victoria: Grampians (ALEXANDER 1930: 127).

Known only from male.

Genitalia. Hypopygium, Fig. 118.

Remarks. Very similar to all other species of the *G. vilis* group. Shorter antennae (17 segments), the leaf-like apical enlargement of the outer gonostylus and the absence of a dorsal hump of the gonocoxite are considered diagnostic for male *G. wilsonella*.

New records. Victoria: Grampians (ANIC, GT); 5 N Grampians (ANIC).

Distribution. Victoria; known only from Grampians.

***Gynoplistia (Gynoplistia) woombye* spec. nov. (Figs 116d, 119)**

Description (♂). Head dark grey; mouth parts brownish grey. Antennae brown to brownish black; 20 segmented, formula 2+3+13+2. Thorax dorsally greyish- to blackish brown; pleura greyish- to dull reddish brown. Coxae and trochanters pale greyish yellow to pale brownish grey; femora pale greyish brown with distal 1/6 to 1/5 black; tibiae, tarsi and claws dark greyish brown to black, only basal 1/10 of metatibia and basal segment of metatarsus white; knees of fore- and midleg also white. Wings hyaline; two greyish black marks, a spot at origin of Rs and a narrow patch occupying cord area; pterostigma greyish black; M1+2 about 1/2 length of M1. Halteres with stem greyish yellow and knob dark greyish brown. Abdomen with tergite 1 black, tergites 2-7 basally and apically yellowish brown, otherwise black, cor-

responding sternites pale brown and terminal segments dark brown.

Dimensions. Wing length 8,0 mm.

Genitalia. Hypopygium, Fig. 119.

Female unknown.

Remarks. Similar to *G. babinda* sp. n., *G. doddi* ALEX. and *G. vilis* (WALK.). The white basal segment of the metatarsus, the narrow dark patch across the cord area, the short cell M1 and the "narrow-necked" aedeagus are considered diagnostic characters of male *G. woombye*.

Material examined. Holotype ♂: Queensland, Woombye, near Nambour, 11-16.10.1965, D.H. Colless (ANIC).

Distribution. Queensland (SEQ); known only from type locality.

Name. From Woombye, in south-eastern Queensland; to be treated as a noun in apposition.

***Gynoplistia (Gynoplistia) viridis* group (Figs 5, 22, 51, 120-124)**

Definition. Antennae 14-16 segmented; flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 51): segment 9 (s9) undivided, with U-shaped posteroventral excision; gonocoxites with strongly developed dorsal (dl) and ventral lobe (vl) and with small hairy mediobasal wart; only one pair of tapered gonostyli (g); aedeagal complex with two elements (lae) each side of the long slender simple aedeagus (ae).

Distribution in Australia. Eastern, mainly south-eastern.

Australian species:

G. apicalis WALK.

G. chalybicolor ALEX.

G. ofarrelli sp. n.

G. viridis MACQ.

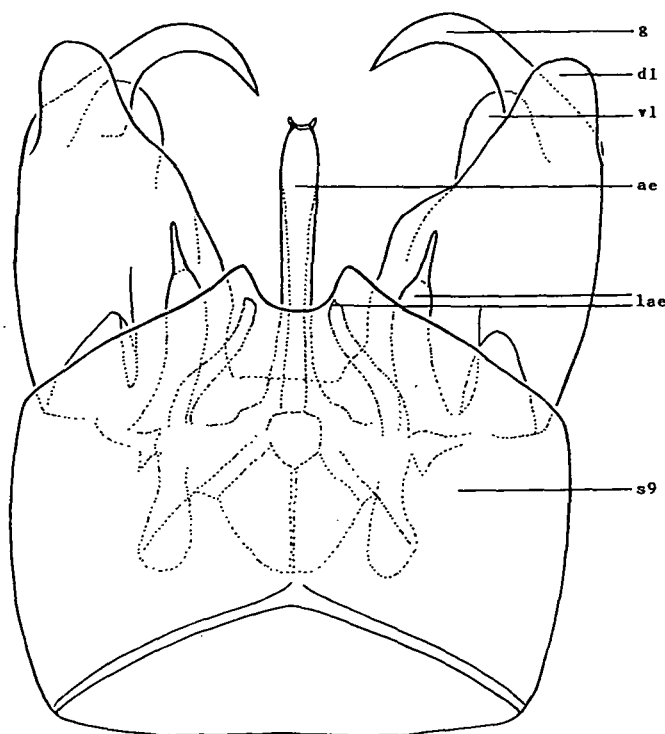


Fig. 51. *Gynoplistia (Gynoplistia) ofarrelli* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; g = gonostylus; lae = lateral elements of aedeagal complex; s9 = segment 9; vl = ventral lobe of gonocoxite.

Gynoplistia (Gynoplistia) viridis MACQUART (Figs 120, 123a)

Gynoplistia viridis MACQUART, Mem. Soc. Sci. Agric. Lille 1838 (2): 44 (1838).

Caenarthria viridis THOMSON, K. Svenska Vetenskaps-Akademien, Kongliga Svenska fregatten Eugénies resa omkring jordan (g. v.). Part 2: Zoologie, (Sec.) 1: Insekter (Stockholm): 446 (1869).

Gynoplistia viridis WESTWOOD; SKUSE, Proc. Linn. Soc. N.S.W. 4: 878 (1890).

Gynoplistia (Gynoplistia) viridis WESTWOOD; OOSTERBROEK and JONAS, Catalogue of the Australian-Oceanian Tipulidae (Insecta, Diptera): 327 (1986).

Gynoplistia (Gynoplistia) viridis WESTWOOD; OOSTERBROEK, Catalog of the Diptera of the Australian and Oceanian Regions (ed. N.L. EVENHUIS): 92 (1989).

Primary type. Holotype ♀: Australasia (no more data available); (repository unknown); most probably lost.

Published records. Australasia (MACQUART 1838: 44). New South Wales: Sydney (SKUSE 1890: 879). Tasmania (SKUSE 1890: 879) is possibly an error.

Previous illustrations. MACQUART 1838: Pl. 3, fig. 1 (entire insect). SKUSE 1890: Pl. XXIII, fig. 39 (wing; but probably of a different species); Pl. XXIV, fig. 70 (male hypopygium).

Genitalia. Male hypopygium, Fig. 120.

Remarks. Very similar to *G. apicalis* WALK., *G. chalybicolor* ALEX. and *G. ofarrelli* sp. n. Largely dull yellow femora, largely yellowish- to greyish brown tibiae (including metatibia) and several largely orange abdominal segments are considered diagnostic characters of *G. viridis*.

New records. Queensland: Brisbane, Sunnybank (ANIC, MV). New South Wales: South West Rocks, Trial Bay (AM); Ulladulla (ANIC).

Distribution. Queensland (SEQ), New South Wales (SEN).

Gynoplistia (Gynoplistia) apicalis WALKER (Figs 5, 121, 123b, 123c, 123d)

Remarks. Very similar to all other members of the *G. viridis* group. Largely dark femora, largely black tibiae, the metatibia with or without distinct yellowish to greyish white ring, a heavy dark wing pattern and an entirely black or variably black and orange patterned abdomen are considered diagnostic characters of *G. apicalis*.

Three subspecies are recognized:

G. a. apicalis WALK.

G. a. evanescens ALEX.

G. a. helmsi ALEX.

Gynoplistia (Gynoplistia) apicalis *apicalis* WALKER (Figs 5, 121, 123b)

Gynoplistia cyanea MACQUART, Mem. Soc. Sci. Agric. Lille 1849 (2): 13 (1850). (Preoccupied by MACQUART, 1835).

Gynoplistia apicalis WALKER, Insecta Saundersiana 5: 447 (1856).

Gynoplistia macquarti SKUSE, Proc. Linn. Soc. N.S.W.

4: 881 (1890). (Unnecessary replacement name for *G. cyanea* MACQUART, 1850).

Gynoplistia chalybeia SKUSE, Proc. Linn. Soc. N.S.W. 4: 884 (1890).

Primary types. Holotype ♀ of *G. cyanea* MACQUART: Tasmania (MNP); seen. Lectotype ♂, by present designation, of *G. apicalis* WALKER: Tasmania (BMNH); seen; antennae and legs missing, genitalia in microvial; labels attached: Syntype; UOL; 68.4; Lectotype ♂ *Gynoplistia apicalis* WALK., des. G. Theischinger 1991. Holotype ♂ of *G. chalybeia* SKUSE: New South Wales, Mt Kosciusko, 5000 ft, March, Helms (AM); seen.

Published records. New South Wales: Mt Kosciusko, 5000 ft (SKUSE 1890: 885). Tasmania: no other data (MACQUART 1850: 13; WALKER 1856: 447).

Previous illustrations. SKUSE 1890: Pl. XXIII, fig. 42 (wing).

Genitalia. Male hypopygium, Fig. 121.

Remarks. Very similar to *G. apicalis evanescens* ALEX. and *G. apicalis helmsi* ALEX. Largely black tibiae, the metatibia with distinct yellowish- to greyish white ring, and an almost entirely black abdomen are considered diagnostic for *G. a. apicalis*.

New records. New South Wales: Barrington Tops, 4215 ft (ANIC); Black Mtn, A.C.T. (ANIC); 9 mi. E Braidwood (ANIC); Brown Mtn, Bega Dist. (ANIC); Bullock Ck, 45 mi. E of Armidale (ANIC); Budthingeroo Ck, Kanangra Boyd N. P. (UQ); Cathedral Rock, via Ebor (UQ); Cathedral Rock N. P. (GT); 15 mi. S Ebor, 3500 ft (ANIC); Kiandra (ANIC); Kosciusko (ANIC); Kosciusko N. P., Dead Horse Gap, 5190 ft (ANIC); Kurrajong Heights (AM); Mt Coree, A.C.T. (ANIC); Mt Gingera, A.C.T. (ANIC); New England N.P. (ANIC); 4 mi. E of Nimmitabel (ANIC); Tidbinbilla, A.C.T. (ANIC); Tindery (ANIC); Tin Mine Ck, Snowy Mts (ANIC); Wee Jasper (ANIC); Wilson's Valley, Mt Kosciusko (AM); Wilson's Valley, Snowy Mts (AM). Victoria: Acheron Way, 170 ft (ANIC); Delegate R., Bendoc Rd (GT); Harrietville (ANIC); 5 km W of Koetung (AM); Lake Mtn, 3100 ft (ANIC); 12 km SE Merrijig, Howqua R. (MV); Mt Baw Baw N. P., swamp

near headwaters of Yarra R. (GT); Mt Buffalo (MV); Rocky Plains, Benambra Rd (GT); Rokeby (MV); Lower Tarwin (MV); Tea Tree Flat, Delegate R. (GT); 11 S Treasure's, 4060 ft (ANIC). Tasmania: Arthur Plains (MV); Crossing Ck (MV); Hartz Mts N. P., 840 m (GT); Lake St Clair (AM); Mt Bobs Ra., Pine Lake, 680 m, W of Hartz Mts (GT); National Park (ANIC, MV); Pelion Hut, 3 km S Mt Oakleigh, 860 m, 41° 50' S/146° 03' E (ANIC); 11 mi. NW of Queenstown (ANIC); 4 mi. SW of Scottsdale (ANIC); 10 mi. NE of Waratah (ANIC).

Distribution. New South Wales (NEN, SEN), Victoria, Tasmania.

Gynoplistia (Gynoplistia) apicalis helmsi ALEXANDER, comb. nov. (Fig. 123c)

Gynoplistia helmsi ALEXANDER, Proc. Hawaii. ent. Soc. 5: 253 (1923).

Gynoplistia (Gynoplistia) viridis helmsi ALEXANDER, Proc. Linn. Soc. N.S.W. 53: 51 (1928).

Primary type. Holotype ♀: New South Wales, Blackheath, Jan. 1904, R. Helms (BPBM); seen.

Published records. New South Wales: Blackheath (ALEXANDER 1923b: 254); Barrington Tops (ALEXANDER 1928: 51).

Previously known only from female.

Description of male. Head black; mouth parts greyish brown. Antennae greyish brown to brownish black; 15-16 segmented, formula 2+2+(8-9)+(3-4). Thorax dorsally shiny black; pleura black, often largely pruinose. Coxae brownish black, pruinose; trochanters brownish black; pro- and mesofemur yellowish brown with distal 1/4 to 2/3 black, metafemur yellowish brown with distal 1/4 to 1/2 black; other leg segments black, except for a distinct yellowish- to greyish white ring of variable length at or past halflength on metatibia. Wings 5, 5-7, 8 mm long; subhyaline, with base yellow, cells C and Sc greyish yellow to brown and apex brownish grey; additionally a heavy brownish grey to greyish black pattern as follows: bases of cells R and M continued into cells CuA and A1; a large square area at origin of Rs; an extensive band at level and including pterostigma and cord, extending from costal margin across the wing,

leaving a pale spot in the centre of dm; a greyish brown cloud beyond midlength of cell A2. Halteres dark yellow. Abdomen black, usually with segments 2 largely, 3 entirely and 4 largely orange; there are also individuals with the orange colouration including additionally segments 4-6, or, restricted to only segment 3 and adjacent portions of segments 2 and 4, or, occupying only a fraction of segment 3, or, divided into two narrow rings on segments 3 and 4.

Genitalia. Male hypopygium much as in *G. a. apicalis*.

Remarks. Very similar to both *G. a. apicalis* WALK. and *G. apicalis evanescens* ALEX. Largely black tibiae, the metatibia with distinct yellowish- to greyish white ring, and a variably extensive orange pattern of the otherwise black abdomen are considered diagnostic characters of *G. apicalis helmsi*.

New records. Queensland: Salvator Rosa N. P. (GT); Woombye, nr Nambour (ANIC). New South Wales: Barrington Tops (ANIC); Barrington Tops N. P. (GT); Blundell's, A. C. T. (ANIC); Brooklans, Sydney (ANIC); Brown Mtn, Bega Dist. (ANIC); Budthingeroo Ck, Kanangra Boyd N. P. (UQ); Cathedral Rock N. P. (GT); nr Cutler's Pass, Williams R. (AM); Eden (ANIC); 14 km W of Grafton (UQ); Mt Coree, A. C. T. (ANIC); Polblue Swamp, Barrington Tops S. F. (AM); 9 mi. NE of Rylstone, 2400 ft (ANIC); Stoney Ck, 77 km N of Windsor (ANIC); Tubrabucca, Upper Hunter Dist. (AM); Wentworth Falls (AM).

Distribution. Queensland (SEQ), New South Wales (NEN, SEN).

***Gynoplistia (Gynoplistia) apicalis evanescens* ALEXANDER, comb. nov. (Fig. 123d)**

Gynoplistia chalybeia evanescens ALEXANDER, Ann. Mag. nat. Hist. (9) 13: 517 (1924).

Primary type. Holotype ♂: Tasmania, King Island, Lea (SAM); not seen.

Published records. Tasmania: King Island (ALEXANDER 1924: 517).

Previously known only from male.

Description of female. Head shiny black; mouth parts blackish brown. Antennae brownish black; 14-16 segmented, formula 2+2+(5-6)+(5-6). Thorax dorsally shiny black; pleura black, often pruinose. Coxae black, pruinose; trochanters blackish brown to black; femora yellowish brown in basal half, greyish black in distal half without clear separation; other leg segments black, rarely with an almost obliterated narrow pale ring on metatibia. Wings 6,0-6,8 mm long; hyaline with cells C and Sc slightly and apex strongly infuscated; in addition a brownish grey pattern as follows: a very small mark adjacent to arculus continued into cells CuA and A1; a larger square patch at origin of Rs; an extensive band at level and including pterostigma and cord, from costal margin across the wing, leaving a pale spot in the centre of dm; often a small cloud at about midlength of cell A2. Halteres with stem greyish yellow and knob greyish brown. Abdomen black with tergite 10, sternite 8, cerci and hypogynial valves yellowish brown.

Genitalia. Male hypopygium much as in *G. a. apicalis* WALK.

Remarks. Very similar to *G. a. apicalis* WALK. and *G. apicalis helmsi* ALEX. Almost or entirely black tibiae with the for *G. a. apicalis* and *G. apicalis helmsi* usual pale ring of the metatibia almost or completely obliterated, and an entirely or almost entirely black abdomen are considered diagnostic characters of *G. apicalis evanescens*.

New records. Victoria: Wilson's Promontory (ANIC).

Distribution. Victoria (Wilson's Promontory only), Tasmania (King Island only).

***Gynoplistia (Gynoplistia) chalybicolor* ALEXANDER (Figs 122, 123e)**

Gynoplistia (Gynoplistia) chalybicolor ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 124 (1930).

Primary type. Holotype ♂: Victoria, Bogong High Plains, 5000-6000 ft, Jan. 1928, F.E. Wilson (MV); seen.

Published records. New South Wales: Mt Kosciusko (ALEXANDER 1930: 125). Victoria: Bogong High Plains, 5000-6000 ft (ALEXANDER

1930: 125).

Genitalia. Male hypopygium, Fig. 122.

Remarks. Similar to all other members of the *G. viridis* group. Entirely black legs, a rather indistinct dark wing pattern and the entirely or almost entirely black abdomen are considered diagnostic characters of *G. chalybicolor*.

New records. New South Wales: Mt Kosciusko, 6000 ft (ANIC); Mt Kosciusko, 2100 m (AM). Victoria: Bogong High Plains (ANIC); Hawkhurst Stn, Wonnangatta R. (ANIC); Lake Mtn, Echo Flat, 4570 ft (ANIC); Mt Baw Baw, 4400 ft (ANIC); Mt Buller (MV).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia) ofarrelli* spec. nov. (Figs 22, 51 124)**

Description. Head shiny black; mouth parts dark greyish brown. Antennae greyish- to blackish brown; 16 segmented in male, formula 2+2+(8-9)+(3-4); 15 segmented in female, formula 2+2+6+5. Thorax dorsally shiny black; pleura black, with some pruinescence. Coxae black, pruinose; trochanters black; femora brownish yellow with distal 1/4 to 1/3 black in male, distal 1/3 to 1/2 black in female; pro- and mesotibia with proximal and distal 1/3 black, greyish white in between; metatibia with proximal 1/8 and distal 1/3 black, otherwise yellow; tarsi and claws black. Wings hyaline with base yellow and apex black; a large patch of black each, adjacent to arculus, at origin of Rs, and across the entire wing at level and including pterostigma and cord area; significant infuscations also in cells CuA, A1 and A2. Halteres whitish- to pale greyish yellow. Abdomen of male black, of female black with tergite 10, posterior portion of sternite 8, cerci and hypogynial valves yellowish brown.

Dimensions. Wing length, male 6,5-7,9 mm, female 8,0 mm.

Genitalia. Male hypopygium, Figs 22, 51, 124.

Remarks. Very similar to all other members of the *G. viridis* group. Largely brownish yellow femora, bicolored tibiae, particularly the metatibia, a heavy black wing pattern and the

entirely or almost entirely black abdomen are considered diagnostic characters of *G. ofarrelli*. Also, the aedeagus of male *G. ofarrelli* is much stouter than that of any other species of the *G. viridis* group.

Material examined. Holotype ♂: New South Wales, Guyra, 7.12.1966, N. Dobrotworsky (ANIC). Paratypes: New South Wales: 1 ♀, same data as holotype (ANIC); 1 ♂, Blue Hole, Gara River, 7.2.1987, G. Theischinger (GT).

Distribution. New South Wales (NEN).

Name. This species is named in honour of Prof. A.F. O'Farrell (Armidale) who, many years ago, did a zoological survey of Blue Hole.

***Gynoplistia (Gynoplistia) viridithorax* group (Figs 32, 52, 125-151)**

Definition. Antennae 17-22 segmented; generally with flabella of basal two, exceptionally with flabella of basal three (only *G. illcha* sp. n.) flagellar segments not aligned with the more distal flabella. Wing cell M1 present; wing pattern generally light and restricted. Male hypopygium (Fig. 52): segment 9 (s9) undivided, posteriorly variably (U-shaped, V-shaped, wide, narrow) excised; two pairs of gonostyli, the inner pair (ig) much larger and stronger developed than the outer (og); aedeagal complex with one pointed element (lae) each side of the long and narrow, tapered aedeagus (ae).

Distribution in Australia. South-eastern.

Australian species:

G. alpigena Alex.

G. argyropleura ALEX.

G. erythrina ALEX.

G. fergusoniana ALEX.

G. flavipes sp. n.

G. flavofemorata ALEX.

G. frazieri sp. n.

G. fulva sp. n.

G. illcha sp. n.

G. isolata sp. n.

G. kundy sp. n.

G. melape sp. n.

G. moma sp. n.

G. murdiella sp. n.

G. ngende sp. n.

G. patruelis ALEX.
G. poenghana sp. n.
G. rieki sp. n.
G. sculpturata ALEX.
G. skusei ALEX.
G. subimmaculata ALEX.
G. tillyardi ALEX.
G. viridithorax SKUSE
G. womba sp. n.

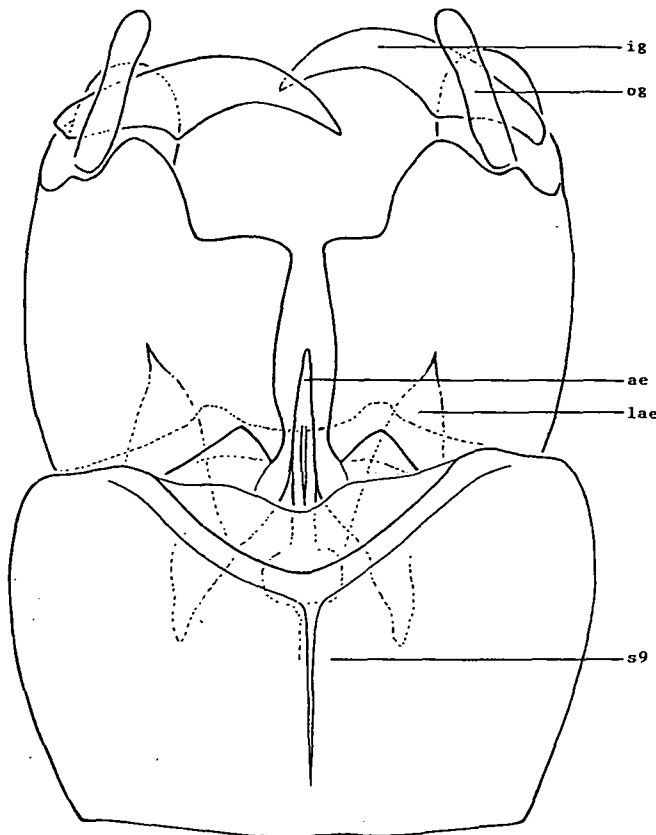


Fig. 52. *Gynoplistia (Gynoplistia) poenghana* sp. n., male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; ig = inner gonostylus; lae = lateral element of aedeagal complex; og = outer gonostylus; s9 = segment 9.

Gynoplistia (Gynoplistia) viridithorax SKUSE (Fig. 125)

Gynoplistia viridithorax SKUSE, Proc. Linn. Soc. N.S.W. 4: 882 (1890).

Gynoplistia (Gynoplistia) mackerrasi ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 60 (1929).

Gynoplistia (Gynoplistia) exornatoides ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 134 (1930).

Primary types. Holotype ♀ of *G. viridithorax* SKUSE: New South Wales, Moonbar, Monaro, 3000-3500 ft, March, Helms (AM); seen; only a few fragments of the body left. Holotype ♀ of *G. mackerrasi* ALEXANDER: New South Wales, Woodford, 14.11.1926, I.M. Mackerras (ANIC); seen. Holotype ♂ of *G. exornatoides* ALEXANDER: Victoria, Ben Cairn, near Millgrove, in beech gully, 2900-3200 ft, 9.2.1929, F.E. Wilson (MV); seen; parts of genitalia in NMNH.

Published records. New South Wales: Moonbar, Monaro, 3000-3500 ft (SKUSE 1890: 883); Woodford (ALEXANDER 1929: 62). Victoria: Ben Cairn, near Millgrove, 2900-3200 ft (ALEXANDER 1930: 134).

Previous illustrations. SKUSE 1890: Pl. XXIII, fig. 41 (wing).

Genitalia. Male hypopygium, Fig. 125.

Remarks. The male hypopygia of *G. viridithorax*, *G. alpigena* ALEX., *G. argyropleura* ALEX., *G. fulva* sp. n., *G. isolata* sp. n. and *G. ngende* sp. n. are almost identical and indicate that these species are very closely related. Annulate tibiae and a largely orange abdomen (both sexes) and the distally somewhat tapered outer gonostylus of the male are considered diagnostic characters of *G. viridithorax*.

New records. New South Wales: Belmore Falls (ANIC); Bendora, A.C.T. (ANIC); Brindabella (ANIC); Bundanoon (GT); Mt Gingera, A.C.T. (ANIC); Mt Kosciusko, 4000-5000 ft (ANIC); 3 mi. SE Pilot Hill, Bago Forest, Batlow (ANIC); Wilson's Valley, Snowy Mts (AM). Victoria: Mt Donna Buang, 2300 ft (ANIC); Sherbrooke Forest, Dandenongs (MV); Spring Hill, 4000 ft (ANIC); Wilson's Promontory (ANIC); Wilson's Promontory, Lilly Pilly Gully (ANIC).

Distribution. New South Wales (SEN), Victoria.

Gynoplistia (Gynoplistia) alpigena ALEXANDER (Figs 126, 130c)

Gynoplistia (Gynoplistia) alpigena ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 66 (1929).

Primary type. Holotype ♂: Victoria, Bogong High Plains, 5600-6000ft, Jan. 1928, F.E. Wilson (MV); seen.

Published records. Victoria: Bogong High Plains, 5600-6000 ft (ALEXANDER 1929: 67).

Genitalia. Male hypopygium, Fig. 126.

Remarks. Similarity and affinities as under *G. viridithorax* SKUSE (see there). Dark trochanters and the dark pattern of the abdomen with tergite 1 and lateral margins of tergite 2 black, are considered diagnostic characters of *G. alpigena*.

New records. Victoria: Bogong High Plains (ANIC); Watchbed Ck, 1800 m, nr Falls Creek (GT).

Distribution. Victoria.

***Gynoplistia (Gynoplistia) fulva* spec. nov. (Figs 127, 130d)**

Description (♂). Head shiny black; mouth parts greyish- to brownish black. Antennae blackish brown to black; 18 segmented, formula 2+2+(9-10)+(4-5). Thorax dorsally shiny black except for the scutellum which is brown; pleura black, largely with strong pruinescence. Coxae brown to black, heavily pruinose; trochanters yellowish brown; femora from pale yellowish brown at base to black at apex; tibiae, tarsi and claws brownish black to black. Wings almost glass-clear with very faint greyish tint; pterostigma dark greyish brown; a greyish brown spot at origin of Rs and a patch in cord area costal of dm. Halteres yellowish- to greyish brown. Abdomen pale yellowish brown or orange without any dark pattern.

Dimensions. Wing length 9,0-10,5 mm.

Genitalia. Hypopygium, Fig. 127.

Female unknown.

Remarks. For similarity and affinities see under *G. viridithorax* SKUSE. The pale scutellum, pale trochanters and the entirely yellowish brown or orange abdomen are considered diagnostic characters of male *G. fulva*.

Material examined. Holotype ♂: New South Wales, Mount Gingera, A.C.T., 4.2.1965, D.H. Colless (ANIC). Paratypes: 10 ♂♂, same data as holotype (ANIC, GT).

Distribution. New South Wales (SEN); known only from Mt Gingera, A.C.T.

Name. Fulvus 3 (= Latin for "tawny") refers to

the colouration of the abdomen.

***Gynoplistia (Gynoplistia) isolata* spec. nov. (Figs 128, 130e)**

Description (♂). Head shiny black; mouth parts brownish black. Antennae greyish brown to brownish black; 19 segmented, formula 2+2+10+5. Thorax dorsally shiny black; pleura black, with strong pruinescence. Coxae black, pruinose; trochanters black; femora from brownish yellow at base to brownish black at apex; tibiae brownish black; tarsi and claws blackish brown to brownish black. Wings hyaline, slightly suffused with greyish brown all over; greyish black in pterostigma area; otherwise only very slightly darkened at origin of Rs and in cord area. Halteres greyish brown. Abdomen pale yellowish brown except for segment 1 which is shiny black.

Dimensions. Wing length 8,4 mm.

Genitalia. Hypopygium, Fig. 128.

Female unknown.

Remarks. For similarity and affinities see above, under *G. viridithorax* SKUSE. Black trochanters and the dark pattern of the abdomen with only segment 1 shiny black, are considered diagnostic characters of male *G. isolata*.

Material examined. Holotype ♂: Tasmania, 3 mi. Brickmakers Bay, 17.2.1965, J. Martin (ANIC).

Distribution. Tasmania.

Name. Isolatus 3 (= New Latin for "separated") refers to the geographical isolation from the possibly closest allies.

***Gynoplistia (Gynoplistia) ngende* spec. nov. (Figs 129, 130f)**

Description (♂). Head shiny black; mouth parts black. Antennae black; 18 segmented, formula 2+2+10+4. Thorax dorsally shiny black; pleura black, largely with strong pruinescence. Coxae black, heavily pruinose; all other leg segments black. Wings almost clear with very faint greyish tint; pterostigma greyish black; a greyish black spot at origin of Rs and a greyish black patch along the cord. Halteres brownish- to blackish grey. Abdomen shiny black without

any pale pattern.

Dimensions. Wing length 9,0 mm.

Genitalia. Hypopygium, Fig. 129.

Female unknown.

Remarks. For similarity and affinities see above, under *G. viridithorax* SKUSE. The almost completely black colouration (except for the wings) is considered diagnostic for male *G. ngende*.

Material examined. Holotype ♂: Victoria, Mt Buller, 5750 ft, 6.2.1955, F.E. Wilson (MV).

Distribution. Victoria; known only from Mt Buller.

Name. Ngende (= Australian Aboriginal word for "darkness") refers to the dark colouration.

***Gynoplistia (Gynoplistia) argyropleura* ALEXANDER (Fig. 130a, 130b)**

Gynoplistia (Gynoplistia) argyropleura ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 128 (1930).

Primary type. Holotype ♂: Victoria, Ben Cairn, near Millgrove, in beech gully, 2900-3200 ft, 9.2.1929, F.E. Wilson (MV); seen; genitalia missing; parts of genitalia in NMNH.

Published records. Victoria: Ben Cairn, nr Millgrove, 2900-3200 ft (ALEXANDER 1930: 129).

Previously known only from male.

Description of female. Head shiny black; mouth parts greyish brown. Antennae greyish- to blackish brown; 18 segmented, formula 2+2+7+7. Thorax dorsally shiny black; pleura blackish brown, pruinose. Coxae brown, pruinose; trochanters brown; femora yellowish brown; tibiae greyish- to blackish brown, darker apically, all with pale yellowish white subapical ring (occupying about 1/4 length of segment) beyond midlength; tarsi and claws black. Wings 8,7 mm long; yellowish hyaline with base darker yellow; two distinct brownish black marks consisting of a spot at origin of Rs and a larger patch at level and occupying pterostigma and cord including proximal side of dm and bscu; a vague grey cloud in distal half of cell A1. Halteres obscure fulvous. Abdomen with anterior portion of tergites 3 and 4, tergite 10, sternites 3-8,

cerci and hypogynial valves brownish yellow, otherwise brownish black to black with tergites 1 and 2 darkest.

Genitalia. Male hypopygium (part), Fig. 130a.

Remarks. For similarity and affinities see above, under *G. viridithorax* SKUSE. Annulate tibiae (only mesotibia in male, all tibiae in female) and the annulate abdomen (anterior portion of tergites 3 and 4 pale, otherwise largely very dark) are considered diagnostic for *G. argyropleura*.

New records. Victoria: Cement Ck (MV).

Distribution. Victoria.

***Gynoplistia (Gynoplistia) womba* spec. nov. (Fig. 131)**

Description (♂). Head shiny black; mouth parts greyish- to brownish black. Antennae greyish- to blackish brown; 17 segmented, formula 2+2+(9-10)+(3-4). Thorax dorsally shiny black except for the scutellum which is yellowish brown; pleura black, largely with strong pruinose. Coxae brown to black, heavily pruinose; trochanters pale reddish- to blackish brown; femora dark yellow with distal 1/6 black; tibiae greyish black in proximal 1/2 and distal 1/4, in between an ill-defined dull yellow to pale greyish brown ring, palest in metatibia, darkest in mesotibia; tarsi and claws greyish brown to black. Wings largely hyaline, base yellow, apex slightly infuscated; two large greyish black marks, one, about square, at origin of Rs and one, irregular in shape, occupying pterostigma and cord area; some infuscation along veins. Halteres yellow. Abdomen with segments 1,2,7 and 8 black, lateral margins of segments 4-6 and 9 darkened, otherwise pale orange.

Dimensions. Wing length 8,8-10,2 mm.

Genitalia. Hypopygium, Fig. 131.

Female unknown.

Remarks. Similar to the group of species around *G. viridithorax* SKUSE (see there). Strongly patterned wings, a peculiar abdominal pattern (see above), slim gonostyli and, possibly, the bowed apex of the lateral element of the aedeagal complex are diagnostic characters of male *G. womba*.

Material examined. Holotype ♂: Tasmania, Mt

Wellington, Feb. 1930, Irwin-Smith (ANIC). Paratype: 1 ♂, Tasmania, Scotts Peak Dam Rd and Clear Creek, 4-5.2.1989, D.J. Bickel (GT).

Distribution. Tasmania.

Name. Womba (= Australian Aboriginal word for "stone knife") refers to the shape of the inner gonostylus.

Gynoplistia (Gynoplistia)
***poenghana* spec. nov. (Figs 32, 52, 132)**

Description (♂). Head largely black; mouth parts blackish brown. Antennae blackish brown to black; 20-22 segmented, formula 2+2+(13-14)+(3-4). Thorax shiny black, much of pleura heavily pruinose. Coxae black, with strong pruinescence; trochanters black; femora yellowish brown with distal 1/6 black; an additional ill-defined black ring occupying central 1/3 of metafemur; tibiae black with whitish- to greyish yellow subapical ring occupying third 1/4 in protibia and metatibia, somewhat shorter and less conspicuous in mesotibia. Wings hyaline with base yellowish, and apex and along some longitudinal veins infuscated; a brownish black patch each, just distal to arculus, at origin of Rs and in pterostigma and cord area costal of dm. Halteres greyish black. Abdomen with tergite 1 black, segments 7-9 largely greyish- to blackish brown, otherwise bright yellowish brown.

Dimensions. Wing length 11,0-13,7 mm.

Genitalia. Hypopygium, Figs 32, 52, 132.

Female unknown.

Remarks. Not very similar to any other described species. Annulate tibiae, the distinct apical tips of tergite 9, the massive posterodorsal lobe of the gonocoxite and the almost parallel sided outer gonostylus are considered to be diagnostic characters of *G. poenghana*.

Material examined. Holotype ♂: Tasmania, National Park, 21.1.1949, E.F. Riek (ANIC). Paratypes: 3 ♂♂, Tasmania, Mount Bobs Range, Pine Lake, 680 m, W of Hartz Mountains, 23.1.1989, yellow pan, D.J. Bickel (ANIC, GT).

Distribution. Tasmania.

Name. Poenghana (= Australian Aboriginal word for "ringlet") refers to the annulate tibiae.

Gynoplistia (Gynoplistia)
***fergusoniana* ALEXANDER (Figs 133, 139a)**

Remarks. The male genitalia of *G. fergusoniana*, *G. moma* sp. n., *G. patruelis* ALEX., *G. skusei* ALEX., *G. tillyardi* ALEX. and *G. kundy* sp. n. are very similar indicating close affinities. Black trochanters, largely pale, only apically black femora, a long whitish yellow subapical ring of the metatibia and a largely orange abdomen are considered diagnostic for *G. fergusoniana*.

Two subspecies are recognized:

G. f. fergusoniana ALEX.

G. f. longicornis ssp. n.

Gynoplistia (Gynoplistia)
fergusoniana fergusoniana
ALEXANDER (Fig. 133)

Gynoplistia fergusoniana ALEXANDER, Ann. Mag. nat. Hist. (9) 13: 516 (1924).

Gynoplistia laticincta ALEXANDER, Ann. Mag. nat. Hist. (10) 13: 260 (1934).

Primary types. Holotype ♂ of *G. fergusoniana* ALEXANDER: New South Wales, Blue Mountains, 7.1.1922, E.W. Ferguson (AM); seen. Holotype ♂ of *G. laticincta* ALEXANDER: New South Wales, Wentworth Falls, Blue Mountains, 20-30.10.1930, F.E. Wilson (MV); seen.

Published records. New South Wales: Blue Mts (ALEXANDER 1924: 517); Wentworth Falls, Blue Mts (ALEXANDER 1934: 261).

Genitalia. Male hypopygium, Fig. 133.

Remarks. Very similar to *G. fergusoniana longicornis* ssp. n. The number of antennal segments (<20) is considered diagnostic for *G. f. fergusoniana*.

New records. New South Wales: nr Barren Ground (GT); Clarence, Blue Mts (AM); Hartley Vale (GT); Leura (AM); nr Robertson (GT); Wentworth Falls (GT). Victoria: Rocky Plain, Benambra Rd (GT).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia)*
fergusoniana longicornis subspec.
nov. (Fig. 139a)**

Description. Head shiny black; mouth parts greyish brown. Antennae greyish- to brownish black; 20-21 segmented in male, formula $2+2+(13-14)+3$; 20 segmented in female, formula $2+2+(8-9)+(7-8)$. Thorax dorsally shiny black; pleura black, largely pruinose. Coxae black, pruinose; trochanters black; femora brownish yellow with distal $1/6$ to $1/4$ black; pro- and mesotibia of male greyish black to blackish brown, of female dark yellowish- to greyish brown with distal $1/4$ black; metatibia of male black, of female greyish brown, in both sexes with whitish yellow subapical ring taking approximately $2/5$ length of tibia; tarsi and claws brownish black to black. Wings glass-clear with barely detectable infuscation at origin of Rs and in cord area; pterostigma blackish brown. Halteres greyish yellow to brownish grey. Abdomen dark yellowish- to pale reddish brown with segments 1 and 8 and hypopygium black in male, only segment 1 black in female.

Dimensions. Wing length, male 8,8-11,3 mm, female 11,7-13,6 mm.

Genitalia. Male hypopygium much as in *G. f. fergusoniana* ALEX., but slightly more slender and elongate, particularly the outer gonostylus.

Remarks. Very similar to *G. f. fergusoniana* ALEX. The greater number of antennal segments (20 or >20) is diagnostic for *G. fergusoniana longicornis*.

Material examined. Holotype ♂: New South Wales, Mt Gingera, A.C.T., 13.1.1963, Bancroft and Mackerras (ANIC). Paratypes: New South Wales: 6 ♂♂, 3 ♀♀, same data as holotype (ANIC, GT); 5 ♀♀, same locality and collectors, 19.1.1963 (ANIC); 1 ♂, same locality, 11.1.1967, D.H. Colless (ANIC); 2 ♀♀, same locality, 4.2.1965, D.H. Colless (ANIC); 1 ♂, same locality, 6.11.1951, S.J. Paramonov (ANIC); 2 ♂♂, 2 ♀♀, same locality, 4.2.1965, Z. Liepa (ANIC); 1 ♂, A.C.T., 4.2.1948, Paramonov (ANIC); 2 ♂♂, Alpine Creek, nr Kiandra, 1.1.1963, Bancroft and Mackerras (ANIC); 1 ♂, same locality and collectors

22.12.1962 (ANIC); 1 ♀, Alpine Creek, 24.12.1935, Mackerras (ANIC); 4 ♂♂, 2 ♀♀, Alpine Creek, Kiandra, 1.1.1934, Mackerras (ANIC); 4 ♂♂, Alpine Creek, Snowy Mountains Highway, 2.2.1965, D.H. Colless (ANIC); 2 ♂♂, 1 ♀, Kiandra, Alpine Creek, Jan. 1933, H.J. Williams (AM); 1 ♂, Perisher Valley, 1500 m, Mount Kosciuszko, 9.1.1981, G. Theischinger (GT); 1 ♂, 1 ♀, Wilson's Valley, Snowy Mountains, 16.2.1963, D.K. McAlpine (AM).

Distribution. New South Wales (SEN).

Name. Longicornis (= Latin for "long horn") refers to the large number of antennal segments.

***Gynoplistia (Gynoplistia) moma*
spec. nov. (Figs 134, 139b)**

Description. Head shiny black; mouth parts greyish yellow to brownish grey. Antennae blackish brown; 18 segmented in male, formula $2+2+(8-9)+(5-6)$; 17 segmented in female, formula $2+2+(6-7)+(6-7)$. Thorax dorsally shiny black; pleura black. Coxae black; trochanters dark brown in male, yellowish brown in female; femora yellowish brown, those of male with distal $1/5$ to $1/4$ black, in female only apex of profemur slightly darkened; tibiae dark yellowish brown to blackish brown; pro- and metatibia with narrow yellowish white subapical ring at about $2/3$ length, more distinct in female than in male, more distinct in foreleg than in hindleg. Wings clear, with base yellow; two substantial brownish black marks, one at origin of Rs and one in cord area costal of dm; pterostigma blackish brown. Halteres yellow. Abdomen of male pale yellowish brown with segments 1 and 2 black; abdomen of female much as in male, however, distal half of tergite 2 is not blackened whereas the sides of segments 3-7 are.

Dimensions. Wing length, male 10,0 mm, female 11,2-11,9 mm.

Genitalia. Male hypopygium, Fig. 134.

Remarks. For similarity and affinities see above, under *G. fergusoniana* ALEX. Narrowly whitish ringed pro- and metatibiae and the largely pale abdomen (both sexes) and the wide V-shaped excision of sternite 9 and the prominent posterodorsal lobe of the gonocoxite (male) are considered diagnostic characters of *G. moma*.

Material examined. Holotype ♂: New South Wales, Mount Kosciusko, 10.2.1980, G. Theischinger (ANIC). Paratypes: 2 ♀♀, same data as holotype (ANIC, GT).

Distribution. New South Wales (SEN); known only from Mt Kosciusko.

Name. Moma is an Australian Aboriginal word for "ghost".

***Gynoplistia (Gynoplistia) patruelis*
ALEXANDER (Figs 135, 136, 139c,
139d)**

Remarks. For similarity and affinities see above, under *G. fergusoniana* ALEX. The dark overall colouration (except for the pale bases of femora and for the pale ring of the metatibia in some populations) of both sexes and the elongate tapered outer gonostylus of the male are considered diagnostic characters of *G. patruelis*.

Two subspecies are recognized.

G. p. eburneocincta ALEX.

G. p. patruelis ALEX.

***Gynoplistia (Gynoplistia) patruelis*
patruelis ALEXANDER (Figs 135,
139c)**

Gynoplistia patruelis ALEXANDER, Ann. Mag. nat. Hist. (9) 13: 513 (1924).

Primary type. Holotype ♂: New South Wales, Kosciusko, 7.12.1922, G. Goldfinch (AM); seen.

Published records. New South Wales: Kosciusko (ALEXANDER 1924: 514).

Genitalia. Male hypopygium, Fig. 135.

Remarks. Very similar to *G. patruelis eburneocincta* ALEX. The dark overall colouration and particularly the uniformly dark tibiae (including metatibia) are considered diagnostic for *G. p. patruelis*.

New records. New South Wales: Alpine Ck (ANIC); Mt Gingera, A.C.T. (ANIC); Kosciusko (ANIC); Kosciusko N. P., Dead Horse Gap, 5190 ft (ANIC); Mt Kosciusko (GT); Perisher Ck, 1500 m, Mt Kosciusko (GT); Perisher Valley, 1500 m (GT). Victoria: Sherbrooke (ANIC).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia) patruelis*
eburneocincta ALEXANDER, stat.
nov. (Figs 136, 139d)**

Gynoplistia (Gynoplistia) eburneocincta ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 131 (1930).

Primary type. Holotype ♂: Victoria, Ben Cairn, near Millgrove, in beech gully, 2900-3200 ft, 9.2.1929, F.E. Wilson (MV); seen.

Published records. Victoria: Ben Cairn, nr Millgrove, 2900-3200 ft (ALEXANDER 1930: 132).

Genitalia. Male hypopygium, Fig. 136.

Remarks. Very similar to *G. p. patruelis* ALEX. The dark overall colouration and the ivory-yellow subapical ring of the metatibia are considered diagnostic for *G. patruelis eburneocincta*. Structural differences between *G. p. patruelis* and *G. patruelis eburneocincta* were found inconsistent; there are specimens available showing intermediate characters (e.g. one metatibia entirely dark, the other with pale ring).

New records. New South Wales: Mt Gingera, A.C.T. (ANIC).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia) skusei*
ALEXANDER (Figs 137, 139e)**

Gynoplistia flavipennis SKUSE, Proc. Linn. Soc. N.S.W. 4: 877 (1890). (Preoccupied by PHILIPPI, 1865).

Gynoplistia (Gynoplistia) skusei ALEXANDER, Ann. Mag. nat. Hist. (9) 17: 530 (1926). (New name for *G. flavipennis* SKUSE).

Primary type. Lectotype ♂, by present designation, of *G. flavipennis* SKUSE: New South Wales, Upper Hunter, Masters (ANIC); seen; additionally labeled "Lectotype ♂ *Gynoplistia flavipennis* SKUSE, designated by G. Theischinger 1993".

Published records. New South Wales: Upper Hunter (SKUSE 1890: 878).

Previous illustrations. SKUSE 1890: Pl. XXIII, fig. 38 (wing).

Genitalia. Male hypopygium, Fig. 137.

Remarks. For similarity and affinities see above, under *G. fergusoniana* ALEX. Most similar to *G. tillyardi* ALEX. Pale trochanters and patterned tibiae without distinct pale ring are considered diagnostic for *G. skusei*.

New records. None.

Distribution. New South Wales (NEN); known only from type locality.

***Gynoplistia (Gynoplistia) tillyardi* ALEXANDER (Figs 138, 139f)**

Gynoplistia (Gynoplistia) tillyardi ALEXANDER, Ann. Mag. nat. Hist. (10) 3: 63 (1929).

Gynoplistia (Gynoplistia) tillyardi acutistyla ALEXANDER, Ann. Mag. nat. Hist. (12) 4: 594 (1951).

Primary types. Holotype ♂ of *G. tillyardi* ALEXANDER: New South Wales, Mount Kosciusko, 24.11.1921, R.J. Tillyard (ANIC); seen. Holotype ♂ of *G. tillyardi acutistyla* ALEXANDER: Victoria, mountains above Warburton, Apr. 1931, F.E. Wilson (MV); seen; genitalia missing.

Published records. New South Wales: Mt Kosciusko (ALEXANDER 1929: 64). Victoria: mountains above Warburton (ALEXANDER 1951: 595).

Genitalia. Male hypopygium, Fig. 138.

Remarks. For similarity and affinities see above, under *G. fergusoniana* ALEX. Most similar to *G. skusei* ALEX. Dark trochanters and patterned tibiae without distinct pale ring are considered diagnostic for *G. tillyardi*. *G. tillyardi acutistyla* ALEX. is considered an insignificant variant rather than a distinct subspecies. The female of *G. tillyardi* was found to have 17-18 segmented antennae, the formula being 2+2+7+(6-7).

New records. New South Wales: Alpine Ck (ANIC); Alpine Ck, Snowy Mts Hwy (ANIC); Blue Mts (ANIC, MV); Blundell's, A.C.T. (ANIC); Countegani (ANIC); Fish R. (ANIC); Lee's Spring (ANIC); Kanangra Boyd (GT); Kiandra (ANIC); Kiandra, Alpine Ck (ANIC); Mt Gingera, A.C.T. (ANIC); Mt Kosciusko (GT); Lake Canoblas, Orange (UQ); Macquarie Pass (GT); Moonbar, 3500 ft (ANIC); Perisher

Ck, 1500 m (GT); Perisher Ck, 1600 m (GT); nr Robertson (GT); 10 km W of Robertson (AM); Shoalhaven R. (ANIC); Tidbinbilla (ANIC); Tinderry (ANIC); Tuross (AM); Wee Jasper (ANIC); Wilson's Valley, Mt Kosciusko, 4000-5000 ft (AM); Wilson's Valley, Snowy Mts (AM); nr Wombeyan Caves (GT); Yarrangobilly (ANIC). Victoria: Baw Baw N. P., swamp nr headwaters of Yarra R. (GT); Bonang R., Bendoc Rd (GT); Culloden, 320 ft (ANIC); Delegate R., Bendoc Rd (GT); Gelantipy, 2120 ft (ANIC); Glen Wills (MV); Harrietville (ANIC); Lake Mtn, 3100 ft (ANIC); Lake Mtn, 4400 ft (ANIC); 17 mi. SW Lake Mtn, 3000 ft (ANIC); Lake Mtn, Echo Flat, 4500 ft (ANIC); Mt Buffalo, 4500 ft (ANIC); Mt Buffalo, Lake Catani (ANIC); Rocky Plain, Benambra Rd (GT); Sherbrooke (ANIC); Tea Tree Flat, Delegate R. (GT); Wilson's Promontory (ANIC).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Gynoplistia) kundy* spec. nov. (Fig. 140)**

Description. Head black; mouth parts greyish brown to black. Antennae blackish brown to black; 18-19 segmented in male, formula 2+2+(10-11)+4; 18 segmented in female, formula 2+2+7+7. Thorax dorsally shiny black; pleura black, largely pruinose. Coxae black, pruinose; trochanters brownish black; femora yellowish brown basally, brownish black distally, the colours not well defined; tibiae, tarsi and claws greyish- to brownish black. Wings hyaline, tinted slightly with grey; two ill-defined greyish black marks including a spot at origin of Rs and a larger patch occupying pterostigma and cord area costal of dm. Halteres brownish grey. Abdomen brownish yellow to orange with segment 1 darkened or even shiny black and terminal segments somewhat darkened.

Dimensions. Wing length, male 8,1-8,9 mm, female 8,9-9,3 mm.

Genitalia. Male hypopygium, Fig. 140.

Remarks. For similarity and affinities see above, under *G. fergusoniana* ALEX. Most similar, however, to *G. tillyardi* ALEX. The rather uniformly coloured femora (both sexes) and the

markedly shorter outer gonostylus (male) are considered diagnostic characters of *G. kundy*.

Material examined. Holotype ♂: Tasmania, Lightning Plains, Jane River, 400 m, 27.1.1989, D. Bickel (ANIC). Paratypes: Tasmania: 1 ♂, 2 ♀♀, Forth River, S of Lemonthyne Stn, 28-30.1.1989, D. Bickel (ANIC); 1 ♂, Gordon River Road and Little Florentine River, 4-5.2.1989, D. Bickel (GT).

Distribution. Tasmania.

Name. Kundy is an Australian Aboriginal word for "mosquito".

***Gynoplistia (Gynoplistia) flavipes* spec. nov. (Figs 141, 145a)**

Description. Head shiny black with brownish yellow spot at the base of each antenna; mouth parts greyish yellow to greyish brown. Antennae with scapus and pedicellus yellowish to greyish brown, otherwise blackish brown; 17 segmented in male, formula 2+2+11+2; 17-18 segmented in female, formula 2+2+(7-8)+(5-6). Thorax dorsally shiny black; pleura black, largely pruinose. Coxae brownish yellow to black, pruinose; trochanters dark yellow; pro- and mesofemur of female dark yellow, apically somewhat darker; metafemur yellow for basal 1/3 to 1/2, thence from yellowish brown to black (darkest at apex); pro- and mesotibia, tarsi and claws of female greyish brown to black; metatibia greyish- to brownish black in basal 1/4, black in distal 1/4, yellowish white in between (both sexes); metatarsus and claws black; foreleg and midleg of male missing. Wings with base yellow, otherwise largely hyaline; a spot at origin of Rs, and cord area costal of dm slightly suffused with grey; pterostigma brownish black. Halteres pale to greyish yellow. Abdomen of male yellow except for segment 1 which is shiny black; abdomen of female much as in male but yellowish to dark brown instead of just yellow.

Dimensions. Wing length, male 10,5 mm, female 13,6-14,3 mm.

Genitalia. Male hypopygium, Fig. 141.

Remarks. *G. flavipes*, *G. flavofemorata* ALEX., *G. frazieri* sp. n. and *G. sculpturata* ALEX. are very similar, even in the structure of the male

hypopygium, indicating close affinities. The extensive whitish yellow central ring of the metatibia which occupies about 1/2 length of that segment is considered diagnostic for *G. flavipes*.

Material examined. Holotype ♂: New South Wales, Mount Kaputar, 2000 ft, 16.11.1968, at light, C.W. Frazier (ANIC). Paratypes: New South Wales: 1 ♀, Mount Kaputar, 3-4.1.1986, G. Theischinger (GT); 1 ♀, Mount Kaputar National Park, 12.1.1978, G. Daniels (UQ).

Distribution. New South Wales (NEN); known only from Mt Kaputar.

Name. Flavipes (= Latin: combination of flavus 3 and pes, meaning "yellow foot") refers to the largely whitish yellow metatibia.

***Gynoplistia (Gynoplistia)* *flavofemorata* ALEXANDER (Figs 142, 145b)**

Gynoplistia (Gynoplistia) flavofemorata ALEXANDER, Proc. Linn. Soc. N.S.W. 53: 63 (1928).

Primary type. Holotype ♂: Victoria, Millgrove, 3900 ft, 21.1.1927, F.E. Wilson (MV); seen.

Published records. New South Wales: Barrington Tops; Mt Kosciusko (both ALEXANDER 1928: 64). Victoria: Millgrove, 3900 ft (ALEXANDER 1928: 64).

Previously known only from male.

Description of female. Head shiny black; mouth parts orange. Antennae greyish- to blackish brown; 19 segmented, formula 2+2+(8-9)+(6-7). Thorax dorsally shiny black; pleura blackish brown, largely pruinose. Coxae blackish brown, pruinose; trochanters obscure yellow; pro- and mesofemur pale to greyish yellow; metafemur brownish yellow with narrow blackish brown apical ring and wider blackish brown central ring, or, brownish yellow at base fading into blackish brown more apically; tibiae blackish brown, the metatibia with whitish yellow subapical ring occupying almost 1/2 length of the segment; tarsi and claws blackish brown to black. Wings 14,2-15,0 mm long, hyaline with base yellow; pterostigma greyish brown; infuscation at origin of Rs and in anterior cord area hardly noticeable. Halteres yellow. Abdo-

men with segment 1 black, otherwise yellowish-to reddish brown.

Genitalia. Male hypopygium, Fig. 142.

Remarks. For similarity and affinities see above, under *G. flavipes* sp. n. Pale trochanters and the rather uniformly colored pro- and mesofemur, together with the broad pale subapical ring of the metatibia, are considered diagnostic characters of *G. flavofemorata*. In all specimens from north of the Hunter River the metafemur is rather uniformly colored (pale fading into dark) whereas most of the specimens from south of the Hunter have ringed (yellow-dark-yellow-dark) metafemora.

New records. New South Wales: Alpine Ck, Kiandra (ANIC); Barrington Tops (AM); Barrington Tops, 1400m (GT); Boonoo Boonoo R., NNE of Tenterfield (GT); Cathedral Rock (GT); Gloucester Tops, 1280 m (GT); Lee's Ck, Brindabella Ra., A.C.T. (AM); Mother of Ducks Lagoon, nr Guyra (GT); Sawpit Ck, Mt Kosciuszko (AM); Styx R., 12 km S of Ebor (MV). Victoria: Lake Mtn (ANIC); Millgrove (MV); St Andrews (MV); Tarra Valley (ANIC).

Distribution. New South Wales (NEN, SEN), Victoria.

Gynoplistia (Gynoplistia) frazieri spec. nov. (Figs 143, 145c)

Description. Head shiny black; mouth parts greyish- to brownish black. Antennae greyish brown to brownish black; 19 segmented in male, formula 2+2+11+4; 18 segmented in female, formula 2+2+(7-8)+(6-7). Thorax dorsally shiny black in male, greyish brown in female; pleura dark brown to black, largely with pruinescence. Coxae dark brown to black, heavily pruinose; trochanters pale to blackish brown; profemur and mesofemur brownish yellow, metafemur dark yellowish brown; tibiae, tarsi and claws brownish black. Wings hyaline; pterostigma greyish brown; two greyish brown marks, a spot at origin of Rs and a larger irregular mark in cord area costal of dm. Halteres dull to greyish yellow. Abdomen largely brownish yellow to dark orange; tergite 1 black, posterior and lateral portions of tergite 2 markedly darkened; lateral and posterior margins of tergites 2-6, respectively 7, 8 and 9 in male, 7 and 8 in female

appear slightly darker than the rest.

Dimensions. Wing length, male 10,0 mm, female 11,6 mm.

Genitalia. Male hypopygium, Fig. 143.

Remarks. For similarity and affinities see above, under *G. flavipes* sp. n. Uniformly dark legs are apparently diagnostic for *G. frazieri*.

Material examined. Holotype ♂: New South Wales, Point Lookout, 22.11.1959, C.W. Frazier (ANIC). Paratype: 1 ♀, Queensland, Montville, Deane (UQ).

Distribution. Queensland (SEQ), New South Wales (NEN).

Name. Dedicated to the memory of the late Mr C.W. Frazier who collected the type specimen.

Gynoplistia (Gynoplistia) sculpturata ALEXANDER (Figs 144, 145d)

Gynoplistia (Gynoplistia) sculpturata ALEXANDER, Ann. Mag. nat. Hist (10) 3: 64 (1929).

Primary type. Holotype ♂: Tasmania, National Park, 16.12.1922, A. Tonnoir (ANIC); seen.

Published records. Tasmania: National Park (ALEXANDER 1929: 66).

Known only from male.

Genitalia. Hypopygium, Fig. 144.

Remarks. For similarity and affinities see above, under *G. flavipes* sp. n. Dark trochanters, patterned femora and the rather uniformly colored metatibiae are considered diagnostic for male *G. sculpturata*.

New records. Tasmania: Bluff Hill, 12 km S Marrawah (MV); National Park (MV).

Distribution. Tasmania.

Gynoplistia (Gynoplistia) melape spec. nov. (Figs 146, 149a)

Description (♂). Head black; mouth parts brown. Antennae brown; 20 segmented, formula 2+2+(11-12)+(4-5). Thorax black. Coxae and trochanters black; femora with proximal 1/2 of profemur, proximal 1/3 of mesofemur and proximal 1/6 of metafemur yellowish brown, other-

wise black; tibiae, tarsi and claws black except for a white subapical ring of metatibia occupying 1/3 length of that segment. Wings clear with two brownish black marks including a spot at origin of Rs and a larger irregular patch in cord area costal of dm; pterostigma brownish black. Halteres pale greyish brown. Abdomen blackish brown.

Dimensions. Wing length 9,0-9,3 mm.

Genitalia. Hypopygium, Fig. 146.

Female unknown.

Remarks. Very similar in structure to *G. murdiella* sp. n. and *G. subimmaculata* ALEX. Very dark overall colouration and very dark legs (except for the bases of femora and a white ring of metatibia) are considered diagnostic characters of male *G. melape*.

Material examined. Holotype ♂: Victoria, Mount Donna Buang, 13.2.1984, G. Theischinger and L. Müller (ANIC). Paratype: 1 ♂, same data as holotype (GT).

Distribution. Victoria; known only from Mt Donna Buang.

Name. Melape (= Australian Aboriginal word for "evil spirit") refers to the very dark colouration.

Gynoplistia (Gynoplistia) murdiella spec. nov. (Figs 147, 149b)

Description (♂). Head blackish brown; mouth parts greyish yellow. Antennae yellowish grey to blackish brown; 21 segmented, formula 2+2+(10-11)+(6-7). Thorax blackish brown. Coxae blackish brown; trochanters yellow to greyish brown, protrochanter palest, metatrochanter darkest; femora yellow; tibiae, tarsi and claws from greyish yellow to dark brown. Wings largely clear with slight infuscation at origin of Rs and in cord area costal of dm; pterostigma dark greyish brown. Halteres with stem greyish yellow and knob brownish grey. Abdomen largely yellow, only segment 1 blackish brown and segment 8 and hypopygium dark reddish brown.

Dimensions. Wing length 9,6 mm.

Genitalia. Hypopygium, Fig. 147.

Female unknown.

Remarks. Very similar in structure to *G. melape* sp. n. and *G. subimmaculata* ALEX. The pale legs (except for the somewhat darker coxae, tibiae, tarsi and claws) are considered diagnostic for male *G. murdiella*.

Material examined. Holotype ♂: Victoria, Otway Ranges, Aire River, headwaters and falls, 18.2.1984, G. Theischinger and L. Müller (ANIC). Paratype: 1 ♂ (abdomen missing), Victoria, Otway Ranges, Lavers Hill, Aug. 1960, D. Duckhouse (MV).

Distribution. Victoria; known only from Otway Ranges.

Name. Murdiella (= Australian Aboriginal word for "wave") refers to the curved posterior margin of tergite 9 of the male.

Gynoplistia (Gynoplistia) subimmaculata ALEXANDER (Figs 148, 149c)

Gynoplistia subimmaculata ALEXANDER, Proc. Linn. Soc. N.S.W. 47: 585 (1922).

Primary type. Holotype ♂: Victoria, Ararat, G.F. Hill (MV); seen; genitalia missing.

Published records. Victoria: Ararat (ALEXANDER 1922: 586).

Known only from male.

Genitalia. Hypopygium, Fig. 148.

Remarks. Very similar in structure to *G. melape* sp. n. and *G. murdiella* sp. n. Apically blackened femora and rather dark tibiae are considered diagnostic characters of *G. subimmaculata*.

New records. Victoria: Mt Cole (MV).

Distribution: Victoria.

Gynoplistia (Gynoplistia) erythrina ALEXANDER

Gynoplistia (Gynoplistia) erythrina ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 132 (1930).

Primary type. Holotype ♀: New South Wales, Mount Kosciusko, 11.2.1924, Nicholson (supposedly in ANIC); not seen; possibly lost.

Published records. New South Wales: Mt Kosciusko (ALEXANDER 1930: 133).

Known only from female.

Original description. Length about 16 mm; wing 14 mm. Rostrum short, reddish, the nasal region tufted with yellow setae; palpi yellowish brown, the terminal segments clearer yellow. Antennae 19 segmented, the formula being 2+2+7+8; scape obscure yellow, the remaining segments and branches black, the bases of the proximal segments restrictedly paler; longest branch about three times the segment; flagellar segment 9 with the branch subequal to the segment; flagellar segment 10 with only a slight apical swelling; terminal segments constricted at midlength and evidently formed by the fusion of two segments. Head shiny chestnut-fulvous. Mesonotal praescutum light chestnut, the usual stripes only poorly differentiated, the median one, especially, with greenish reflexions, the stripes with transverse striolae as in the group, the median area further elevated into a ridge; remainder of mesonotum reddish chestnut, with evident sculpturing, on the postnotal mediotergite coarser, the cephalic portion with transverse striae, the remainder of the sclerite with a median furrow and accessory lateral striae that are long and oblique, the posterior region more nearly smooth. Pleura reddish chestnut, with a sparse grey bloom; dorso-pleural region black; a darkened depressed area on the suture between the anepisternum and pteropleurite; ventral sternopleurite and pleurotergite nitidous. Pleurotergite with the ventral cephalic portion elevated into a conspicuous tubercle, the remainder of the surface with coarse striae. Halteres fuscous, the knobs brighter, obscure fulvous. Legs with coxae reddish chestnut, very sparsely pruinose except at base; trochanters reddish yellow; femora uniformly reddish orange; fore and middle tibiae yellowish brown, brighter basally, the tips more darkened; posterior tibiae elongate, yellowish brown, the outer face darker, the tip narrowly infuscated, with a broad pale yellow subterminal ring occupying about 1/3 the total length of the segment; tarsi relatively short, dark brown; tibial spurs elongate. Wings with a light yellow tinge, the distal half a trifle more infused; stigma dark brown, very conspicuous; remainder of wing-disk almost clear, with very restricted brown clouds at origin of Rs and along the cord; veins dark brown, the

posterior prearcular veins light yellow. Venation: Rs long, strongly arcuated to feebly angulated at origin; m-cu at about 1/5 the length of cell 1st M2 and lying proximal of r-m. Abdomen reddish, with vague bronzy or coppery reflexions, the extreme base of tergite 1 deep greenish black; restricted sublateral darkened areas are apparently not normal; sternites even darker and more coppery. Ovipositor with the elongate valves brownish horn-colour, the tips of the tergal valves paler.

Remarks. Not very similar to any other described species. The remarkable colouration of head (shiny chestnut-fulvous) and pleura (reddish chestnut, with sparse grey bloom) in combination with the pattern of the legs (see above) are considered diagnostic characters of female *G. erythrina*.

New records. None.

Distribution. New South Wales (SEN); known only from Mt Kosciusko.

Gynoplistia (Gynoplistia) rieki spec. nov. (Fig. 149d)

Description (♀). Head largely greyish brown to greyish black; rostrum and mouth parts yellowish brown. Antennae with scapus yellowish brown, otherwise dark greyish brown; 18 segmented, formula 2+2+7+7. Thorax with prescutum and scutum blackish brown to black, each with silvergrey (pruinose) mark each side, and scutellum dull whitish yellow, otherwise bright yellowish brown to orange. Coxae, trochanters and femora bright yellowish brown to orange; tibiae largely greyish- to blackish brown, slightly less than distal 1/2 of protibia and a narrow ring from about 5/8 to 7/8 length in metatibia bright yellowish white; tarsi and claws brownish grey to black. Wings hyaline; a large irregular brownish black patch in pterostigma and cord area costal of dm. Halteres brownish- to greyish yellow. Abdomen bright brownish yellow to orange.

Dimensions. Wing length 12,6 mm.

Male unknown.

Remarks. Not very similar to any other described species but apparently a member of the *G. viridithorax* group. The conspicuous

colouration (sides of thorax, coxae, trochanters, femora and abdomen all bright yellowish brown to orange; white apical ring of protibia and white subapical ring of metatibia) is diagnostic for female *G. rieki*.

Material examined. Holotype ♀: Queensland, Brisbane, Sunnybank, 1.4.1950, E.F. Riek (ANIC).

Distribution. Queensland (SEQ); known only from type locality.

Name. This species is dedicated to Dr E.F. Riek who discovered it and who facilitated my studies of Australian Tipulidae in many ways.

Gynoplistia (Gynoplistia) illcha spec. nov. (Fig. 150)

Description (♂). Head black; mouth parts yellowish- to greyish brown. Antennae greyish- to blackish brown; 17 segmented, formula 2+3+7+5. Thorax black. Coxae and trochanters black; femora yellowish- to greyish brown with apical 1/5 of pro- and mesofemur, and apical 1/4 of metafemur blackened; pro- and mesotibia greyish- to blackish brown and darkened apically, metatibia yellowish grey to greyish brown and darkened apically; tarsi and claws brownish black. Wings hyaline with large blackish brown mark at origin of Rs and larger irregular blackish brown patch in cord area costal of dm; pterostigma blackish brown. Halteres pale greyish brown. Abdomen with segments 1, 2 and 7-9, hypopygium and distal half of segments 3, 4, 5 and 6 black, otherwise yellow.

Dimensions. Wing length 9,0 mm.

Genitalia. Hypopygium, Fig. 150.

Female unknown.

Remarks. Somewhat dissimilar to all other species of the *G. viridithorax* group but definitely a member of it. The unusual structure of the antennae, the unusual annulate abdominal pattern, the narrow apex of tergite 9, the wide posteroventral excision of sternite 9 and the minute outer gonostylus are diagnostic characters of male *G. illcha*.

Material examined. Holotype ♂: New South Wales, Wentworth Falls, Blue Mountains, 15.11.1980, G. Theischinger (ANIC).

Distribution. New South Wales (SEN); known only from type locality.

Name. Illcha (= Australian Aboriginal word for "finger") refers to the small, almost finger-like outer gonostylus of the male.

Gynoplistia (Gynoplistia) *yonguldye* group (Figs 20, 53, 151)

Definition. Male antennae with flabella of basal two flagellar segments not aligned with the more distal flabella. Wing cell M1 present. Male hypopygium (Fig. 53): segment 9 (s9) undivided, with very wide V-shaped posteroventral excision; gonocoxites (ge) with dorsal lobe (dl) prominent and with long sausage-shaped, anteriorly directed, mediobasal process; only one pair of simple, slightly pointed and hooked gonostyli (g); aedeagal complex with a profoundly bifid element and a very slender needle-like element (lae) each side of the long slender tapered aedeagus (ae).

Distribution in Australia. South-eastern (Tasmania only).

Only one Australian species:

G. yonguldye sp.n.

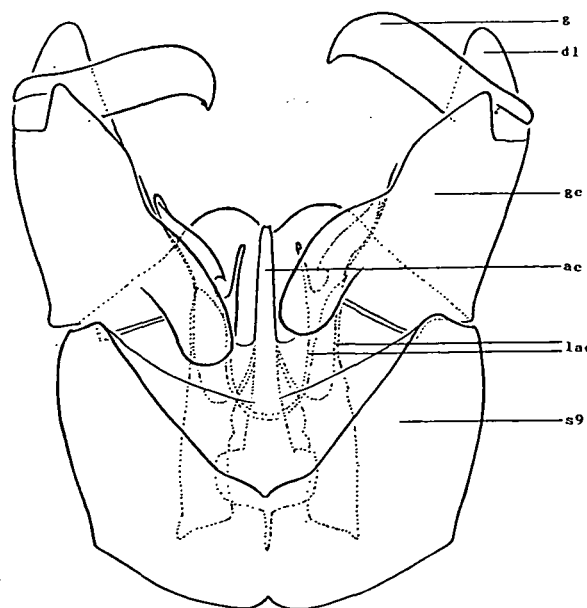


Fig. 53. *Gynoplistia (Gynoplistia) yonguldye* sp. n., male hypopygium, ventral aspect. Abbreviations: ae = aedeagus; dl = dorsal lobe of gonocoxite; g = gonostylus; ge = gonocoxite; lae = lateral elements of aedeagal complex; s9 = segment 9.

***Gynoplistia (Gynoplistia)*
yonguldye spec. nov. (Figs 20, 53,
151)**

Description (♂). Head including mouth parts greyish black. Antennae brownish grey to greyish black; 16 segmented, formula 2+2+10+2. Thorax greyish black, somewhat shiny dorsally. Legs greyish- to brownish black. Wings hyaline, not very clear, with more or less distinct infuscation along some veins; a greyish black patch each, distal to arculus, at origin of Rs and in cord area. Halteres brownish- to blackish grey. Abdomen greyish black.

Dimensions. Wing length 9,5 mm.

Genitalia. Hypopygium, Figs 20, 53, 151.

Female unknown.

Remarks. Not similar to any other described species. The simple plump gonostylus and the elaborate lateral elements of the aedeagal complex are considered diagnostic for male *G. yonguldye*.

Material examined. Holotype ♂: Tasmania, SW, Arthur Range, Morain B, 5.2.1965, Neboiss (MV).

Distribution. Tasmania.

Name. Yonguldye (= Australian Aboriginal word for "darkness") refers to the very dark colouration.

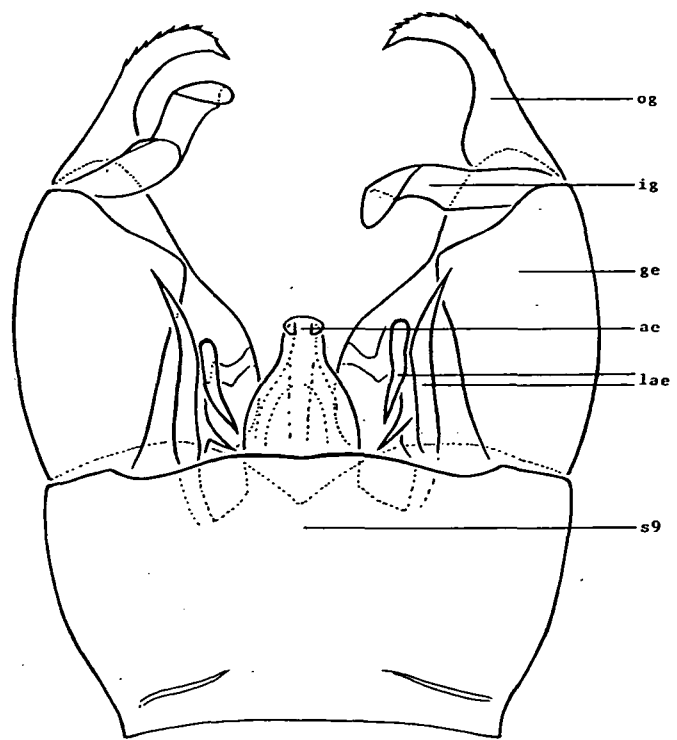


Fig. 54. *Gynoplistia (Gynoplistia) tooronga* sp. n., male hypopygium, dorsal aspect. Abbreviations: ae = aedeagus; ge = gonocoxite; ig = inner gonostylus; lae = lateral elements of aedeagal complex; og = outer gonostylus; s9 = segment 9.

***Gynoplistia (Gynoplistia) zebrata*
group (Figs 6, 24, 54, 152-154)**

Definition. Antennae 16-17 segmented; 11-12 segments with flabella, those of the basal two flagellar segments not aligned with the more distal flabella, in male; no flabella in female. Wing cell M1 absent; dark wing pattern heavy and extensive. Male hypopygium (Fig. 54): segment 9 (s9) undivided, with V-shaped posteroventral excision; gonocoxites (ge) posteroventrally not widened and without a lobe; two pairs of gonostyli (ig, og); aedeagal complex with a bifid and a simple element (lae), possibly including interbase, each side of the pear-shaped aedeagus (ae).

Distribution in Australia: South-eastern (Victoria only).

Australian species:

G. quagga sp. n.

G. tooronga sp. n.

G. yarra sp. n.

G. zebrata ALEX.

Gynoplistia (Gynoplistia) zebrata

ALEXANDER

Gynoplistia (Gynoplistia) zebrata ALEXANDER, Ann. Mag. nat. Hist. (10) 6: 134 (1930).

Primary type. Holotype ♀: Victoria, Ben Cairn, near Millgrove, in beech gully, 2900-3200 ft, 9.2.1929, F.E. Wilson (MV); seen.

Published records. Victoria: Ben Cairn, near Millgrove, 2900-3200 ft (ALEXANDER 1930: 135).

Known only from female.

Original description. Length about 9 mm; wing 6,8 mm. Rostrum and palpi black. Antennae 16 segmented, the basal four or five segments pale, the outer segments passing into black; flagellar segments 5 to 7 slightly produced, giving to the segments a triangular appearance. Head black, heavily grey pruinose. Mesonotum black, shiny, but not highly polished; pleura black, heavily pruinose. Legs with the coxae black, pruinose; trochanters dark brown; femora black, the bases narrowly brightened, more extensively so on the forefemora; tibiae black; tarsi brownish black, the proximal ends of the basitarsi slightly paler. Wings with the ground-colour creamy, with three complete dark brown cross-bands, together with additional dark markings nearer the wing base; cell C entirely dark brown; cell Sc a little paler; first dark band at level of origin of Rs; second band at cord, completely darkening cell 1st M2, both these bands of approximately equal width and broader than the pale interspace; third dark band including the broad apex; in addition, the base of cells R and M extensively darkened, together with more than the distal half of cell 2nd A; veins dark brown, a little paler in the ground-colour. Venation: cell M1 lacking; cell 1st M2 small, short-rectangular, m-cu close to midlength. Halteres brownish black throughout. Abdomen black, shiny, the genital segments more pruinose. Ovipositor very elongate, the valves horn-yellow.

Remarks. Similar to all members of the *G. zebrata* group, most similar to *G. quagga* sp. n. The smaller size and the pale bases of antennae and femora are considered diagnostic for female *G. zebrata*.

New records. None.

Distribution. Victoria; known only from type locality.

***Gynoplistia (Gynoplistia) quagga* spec. nov. (Fig. 152)**

Description (♂). Head largely blackish grey; mouth parts and antennae dark brownish grey to blackish grey. Antennae 16 segmented, formula 2+2+8+4 or 2+2+9+3. Thorax with prescutum and scutum shiny black, remainder blackish grey. Coxae blackish grey; trochanters and basal third of profemur greyish brown, remainder of legs black. Wings largely greyish black with four rather extensive transparent areas. Halteres largely greyish brown, the stem somewhat paler than the knob. Abdomen blackish brown to black, dorsally darker than ventrally.

Dimensions: Wing length 7,5-7,6 mm.

Genitalia. Hypopygium, Fig. 152.

Female unknown.

Remarks. Very similar to *G. yarra* sp.n. and possibly to *G. zebrata* ALEX. The large size, the almost uniformly dark antennae and femora and the moderately thick, evenly curved outer gonostylus appear to be diagnostic characters of *G. quagga*.

Material examined. Holotype ♂: Victoria, Lake Mtn, 3000 ft, swamp, 1.2.1967, N. Dobrotworsky (ANIC). Paratype: 1 ♂, same data as holotype (GT).

Distribution. Victoria; known only from type locality.

Name. Quagga is the scientific name of a zebra species and refers to the distinctive wing pattern; to be treated as a noun in apposition.

***Gynoplistia (Gynoplistia) yarra* spec. nov. (Figs 6, 153)**

Description. Head including mouth parts and antennae black. Antennae 16 segmented; formula 2+2+9+3 in male; no flagellar processes in female. Thorax black. Legs black. Wings largely greyish black with four rather extensive hyaline areas. Halteres with pale stem; knob dark with pale patch. Abdomen blackish brown to black, dorsally darker than ventrally; female with tergite

10, cerci and hypogynial valves largely dull yellow.

Dimensions. Wing length, male 6,8-7,6 mm, female 8,0 mm.

Genitalia. Male hypopygium, Fig. 153.

Remarks. Very similar to *G. quagga* sp. n. and, possibly, to *G. zebrata* ALEX. The almost completely black colouration (both sexes) and the slender, hook-shaped outer gonostylus (male) are considered diagnostic for *G. yarra*.

Material examined. Holotype ♂: Victoria, Mt Baw Baw National Park, swamp near headwaters of Yarra River, Jan. 1991, G. Theischinger (ANIC). Paratypes: 1 ♂, 1 ♀, same data as holotype (ANIC, GT).

Distribution. Victoria; known only from type locality.

Name. From Yarra River, in Victoria; to be treated as a noun in apposition.

***Gynoplistia (Gynoplistia) tooronga* spec. nov. (Figs 24, 54, 154)**

Description (♂). Head blackish grey; mouth parts blackish brown. Antennae with scapus, pedicellus and basal two flagellar segments, except for the processes, yellowish brown, otherwise blackish brown; 17 segmented, formula 2+2+10+3. Thorax pale to dark greyish brown, dorsally shiny. Coxae greyish brown; trochanters and basal 1/3 to 1/2 of femora pale brownish yellow, remainder of legs dark greyish brown to black. Wings with pale-dark pattern about even, the dark areas brownish- to greyish black. Halteres with knob greyish brown to black and markedly darker than stem. Abdomen greyish yellow to blackish brown.

Dimensions. Wing length 7,2 mm.

Genitalia. Hypopygium, Figs 24, 54, 154.

Female unknown.

Remarks. Similar to the three other members of the *G. zebrata* group. The comparatively paler colouration and the strongly bowed inner and short outer lateral elements of the aedeagal complex are considered diagnostic for *G. tooronga*.

Material examined. Holotype ♂: Victoria,

Tooronga Falls, 1050 ft, 26.1.1966, collector unknown (possibly Dobrotworsky) (ANIC).

Distribution. Victoria; known only from type locality.

Name. From Tooronga Falls, the type locality in Victoria; to be treated as a noun in apposition.

Insufficiently clarified species of *Gynoplistia (Gynoplistia)*

This artificial group includes species which cannot be satisfactorily identified or assessed at the present; all of them are known only from female specimens.

The species are:

G. howensis SKUSE

G. nicholsoni ALEX.

G. uwinnia sp. n.

***Gynoplistia (Gynoplistia) howensis* SKUSE**

Gynoplistia howensis SKUSE, Proc. Linn. Soc. N.S.W. 4: 872 (1890).

Primary type. Holotype ♀: Lord Howe Island (ANIC); seen.

Published records. New South Wales: Lord Howe Island (SKUSE 1890: 873).

Previous illustrations. SKUSE 1890: Pl. XXIII, fig. 35 (wing).

Known only from female.

Original description. Length of antennae 2,27 mm. Expanse of wings 8,87 x 1,27 mm. Size of body 10,16 x 1,27 mm. Head very deep metallic blue; rostrum, palpi and antennae black, the base of rostrum and first two or three antennal joints testaceous-yellow; antennae 16 jointed, the first 7 flagellar joints with short subequal branches, the following two with rudimentary ones; first two branches directed outwards; last five joints sub-elliptical, the terminal one elongate, twice the length of the penultimate joint. Thorax testaceous or light yellowish brown, somewhat shining; pleura with a grey bloom. Halteres ochreous, the club black. Abdomen deep violaceous-black, with the first two segments testaceous; ovipositor entirely ochreous or light testaceous, the valves slender, slightly curved. Coxae and femora testaceous, the latter

with a black ring at apex; genua pale; tibiae and tarsi black. Wings with a very pale yellowish tint, more yellow at the base, with a spot and two fasciae of brown (all equidistant), also costal cell and apex of wing (from inner end of second posterior cell) clouded with brown; the spot filling bases of the basal cells; first fascia extending from origin of second longitudinal to tip of seventh longitudinal vein, interrupted only in the second basal cell; second fascia entire, extending from costa, at stigma, to posterior margin at fifth longitudinal vein; veins dark brown. Auxiliary vein reaching costa opposite inner end of second sub-marginal cell; first longitudinal vein terminating in costa about mid-way between tips of auxiliary vein and anterior branch of second longitudinal; marginal cross-vein indistinct, short, about twice its length distant from tip of first longitudinal, and opposite the middle of anterior branch of second longitudinal vein; praefurca angulated at its origin, of moderate length; petiole of first sub-marginal cell very short; anterior branch of second longitudinal vein angulated at its base, sinuated, about half the length of posterior branch; second posterior cell half the length of the third posterior; discal cell somewhat longer than wide, the great cross-vein at its inner end; sixth longitudinal vein slightly and seventh distinctly sinuated.

Remarks. The yellowish brown thorax and the banded wings appear to be diagnostic for *G. howensis*.

New records. New South Wales: Lord Howe Island, Mt Gower summit (AM).

Distribution. New South Wales; known only from Lord Howe Island.

***Gynoplistia (Gynoplistia) nicholsoni* ALEXANDER**

Gynoplistia (Gynoplistia) nicholsoni ALEXANDER, Proc. Linn. Soc. N.S.W. 53: 64 (1928).

Primary type. Holotype ♀: New South Wales, Barrington Tops, Jan. 1925, S.U. Zool. Exp. (ANIC); seen.

Published records. New South Wales: Barrington Tops (ALEXANDER 1928: 64).

Known only from female.

Original description. Length about 20 mm, wing 15 mm. Rostrum and palpi black. Antennae black throughout, 19 segmented, the formula being 2+2+7+8; branch of the third flagellar segment occupying a plane that is about intermediate between those of segments two and four; longest branch (flagellar segments four to six) nearly three times the segment; branch of flagellar segment nine subequal to the segment; flagellar segment ten with the face merely protuberant; remaining flagellar segments subcylindrical, crowded, the terminal segment about twice the length of the penultimate, strongly constricted near midlength and apparently formed by fusion of two segments. Head black. Prothorax and mesothorax deep velvety-black; prosternum on either side produced ventrad into a hemispherical lobe that is densely provided with very short setae; sternopleurite and ventral portion of anepisternum subglabrous. Halteres short, orange. Legs with coxae velvety-black; trochanters black; femora orange, the tips conspicuously blackened, most narrowly on the fore femora where the amount is scarcely 1/2 that of the corresponding blackened apex of the tibia; on the middle femora the amount is greater, including more than the distal quarter and subequal in amount to the blackened mid-tibial apex; on the hind femora, the black is very extensive, including more than 2/5 of the segment and about 1/2 wider than the blackened apex of the corresponding tibia; tibiae orange, the tips blackened as described above; tarsi black, all basitarsi orange, with only the tips narrowly blackened; on the posterior tarsi, the proximal half of the second tarsal segment is obscure orange. Wings pale luteous, handsomely patterned with brownish black, the base broadly and conspicuously orange; cell C beyond arcus blackened; base of cells Sc similarly darkened, the outer portion adjoining vein R more yellowish; a series of clearly delimited dark spots as follows: bases of cells R and M; origin of Rs, reaching vein M; a broad band at the cord, including the stigma, suffusing cell 1st M2 except for two small droplets of the ground-colour, sending a narrower seam along vein Cu1 to the wing-margin; wing tip conspicuously darkened, including the outer ends of cells R3, R4 and R5, the outer 2/3 of M1 and the extreme outer end of cell 2nd M2; a very conspicuous,

clearly defined, oval spot in cell A1 adjoining the vein shortly before its outer end; a second, more irregular spot crosses vein A2 near midlength, the majority lying in cell A2; veins black in the darkened areas, pale yellow in the luteous regions, the base and pale costal margin more orange. Macrotrichia of veins corresponding in colour to the veins themselves. Costa at base incrassated and strongly setiferous. Macrotrichia of veins beyond the cord very small and sparse, there being none on R2+3, R3, R4 or the medial veins and only a scattered series of about a dozen on vein R5. Venation: R2+3+4 short, a little longer than r-m; cell M1 nearly 1/2 longer than its petiole; m-cu at or just beyond midlength of cell 1st M2. Abdomen with the first segment black; segments 2-7 dull brick-orange; remaining segments black; ovipositor with the valves yellowish horn colour, the tergal valves rather strongly upcurved.

Remarks. The large size, the colouration of the legs and the very clearly defined dark wing pattern appear to be diagnostic for female *G. nicholsoni*.

New records. None.

Distribution. New South Wales (NEN).

***Gynoplistia (Gynoplistia) uwinnia* spec. nov.**

Description (♀). Head shiny black; mouth parts greyish brown to black. Antennae with scapus and pedicellus greyish yellow, flagellar segments greyish brown to brownish black, the basal six with yellowish grey basal and apical ring; 15-16 segmented, formula 2+2+7+4 or 2+2+7+5. Thorax with prescutum and scutum shiny black, otherwise greyish brown to brownish black. Coxae dark greyish brown; trochanters yellowish- to greyish brown; femora dull greyish yellow with about the distal 1/4 (profemur) to 1/6 (metafemur) black or, profemur yellowish grey with distal 1/4 black, mesofemur greyish brown to black and metafemur blackish brown to black; tibiae black with white ring at midlength, occupying about 1/3 tibial length in protibia, 1/5 to 1/4 in meso- and metatibia; tarsi and claws black. Wings hyaline, not very clear; apex, costal and subcostal cells and along some longitudinal veins infuscated; a greyish black

mark each, distal to arculus, at origin of Rs and in pterostigma and cord area occupying also all or most of dm. Halteres with stem whitish grey and knob brownish grey. Abdomen largely black, only basal sternites somewhat paler brownish, and tergite 10, sternite 8 largely, cerci and hypogynial valves brownish yellow.

Dimensions. Wing length 8,4-8,5 mm.

Male unknown.

Remarks. Not very similar to any other described species. The dark colouration of the insect and the white rings on all tibiae are considered diagnostic for female *G. uwinnia*.

Material examined. Holotype ♀: Queensland, 15°35'S/145°09'E, 3 km NE of Mt Webb, 2.10.1980, malaise trap, D.H. Colless (ANIC). Paratype: 1 ♀, Queensland, 12°35'S/143°18'E, 11 km ENE of Mt Tozer, 11-16.7.1986, D.H. Colless (ANIC).

Distribution. Queensland (CY).

Name. *Uwinnia* is an Australian Aboriginal word for "mosquito".

Subgenus *Xenolimnophila*

ALEXANDER (Figs 3, 9b, 13, 55, 56, 155-160)

Xenolimnophila ALEXANDER, Rec. S. Aust. Mus. 2: 247 (1922); as subgenus of *Limnophila* MACQUART.

Type species: *Limnophila zaluscodes* ALEXANDER 1922, by monotypy.

Definition. Antennae never flabellate. Wings (Figs 9b, 55) with Sc ending in C (Sc1 present). Male hypopygium (Fig. 56): segment 9 ventrally with small posterior lobes (pl) and with strongly sclerotized, X-shaped, inner support (xs). All species large (body of females longer than 15 mm).

Distribution. Australia (south-eastern).

The (Australian) species of *Gynoplistia* (*Xenolimnophila*):

G. fergusoni (ALEX.)

G. flindersi ALEX.

G. paketye sp. n.

G. tubrabucca sp. n.

G. zaluscodes (ALEX.)

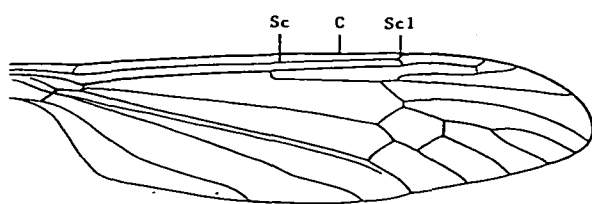


Fig. 55. *Gynoplistia (Xenolimnophila) fergusonii* (ALEXANDER), wing venation.

Gynoplistia (Xenolimnophila) zaluscodes (ALEXANDER)

Limnophila (Xenolimnophila) zaluscodes ALEXANDER, Rec. S. Aust. Mus. 2: 247 (1922).

Primary type. Holotype ♂: Tasmania, Waratah, H.J. Carter and A.M. Lea (SAM): seen.

Published records. Tasmania: Waratah (ALEXANDER 1922b: 248).

Remarks. Similar in structure to all other species of *Gynoplistia (Xenolimnophila)*. The brachypterous condition (both sexes) is apparently diagnostic for *G. zaluscodes*.

New records. Tasmania: Hellyer Gorge (ANIC); Mt Farrel (ANIC).

Distribution. Tasmania.

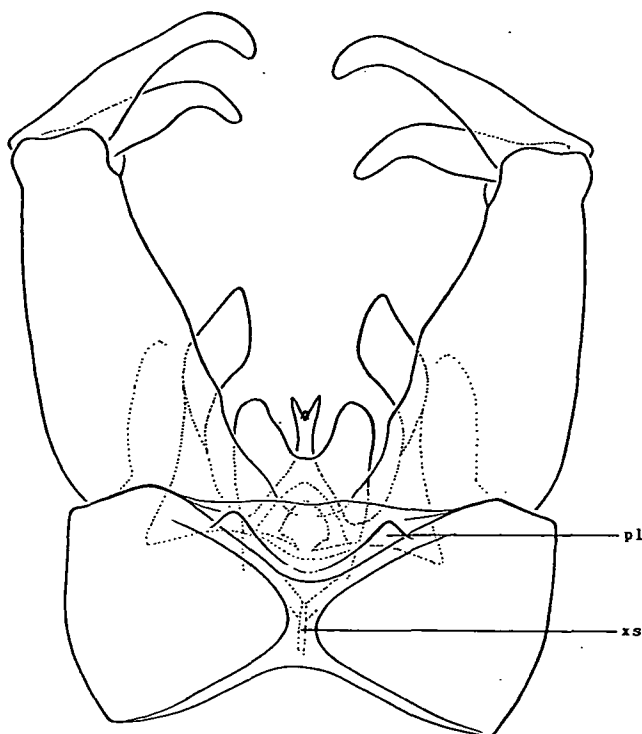


Fig. 56. *Gynoplistia (Xenolimnophila) paketye* sp. n., male hypopygium, ventral aspect. Abbreviations: pl = posteroventral lobe of segment 9; xs = X-shaped ventral support of segment 9.

Gynoplistia (Xenolimnophila) fergusonii (ALEXANDER) (Figs 3b, 9b, 55, 155, 156, 160a, 160b)

Limnophila (Paralimnophila) fergusonii ALEXANDER, Ann. Mag. nat. Hist. (9) 12: 384 (1923).

Primary type. Holotype ♂: New South Wales, Mount Kosciusko, 17.12.1922, Goldfinch (AM): seen.

Published records. New South Wales: Mount Kosciusko (ALEXANDER 1923: 38).

Genitalia. Male hypopygium, Figs 155, 156, 160a, 160b.

Remarks. A rather extensive dark wing pattern (both sexes) and the almost straight wide leaf-shaped lateral element of the aedeagal complex (male) are considered diagnostic characters of *G. fergusonii*. There seems to be some geographic variability, even in the male genitalia

(compare Figs 155 and 156, 160a and 160b).

New records. New South Wales: Mount Keira (GT); Kosciusko (AM); Rutherford Creek, Brown Mtn nr Nimmitabel (AM). Victoria: Bonang Highway - Bendoc Road jn, 10 km S of Bonang (ANIC); Deddick River, 0,5 km above Snowy River jn (MV); Spring Hill, 4000 ft (ANIC).

Distribution. New South Wales (SEN), Victoria.

***Gynoplistia (Xenolimmophila) flindersi* ALEXANDER (Figs 157, 160c)**

Gynoplistia (Xenolimmophila) flindersi ALEXANDER, Ann. Mag. nat. Hist. (10) 8: 158 (1931).

Primary type. Holotype ♂: Tasmania, Flinders Island, J. Woods (MV); seen.

Published records. Tasmania: Flinders Island (ALEXANDER 1931: 159).

Known only from male.

Genitalia. Hypopygium, Figs 157, 160c.

Remarks. Similar to all other species of *Gynoplistia (Xenolimmophila)*. Sparsely patterned wings and the narrow leaf-shaped and apparently divergent lateral elements of the aedeagal complex are considered diagnostic characters of male *G. flindersi*.

New records. Victoria: Beech Forest, Otways (NMNH); Otway, 17 mi. S of Forest, 700 ft, Grey River Reserve (ANIC); Otway Ranges, E of Mt Sabine, 2000 ft (AM).

Distribution. Victoria, Tasmania.

***Gynoplistia (Xenolimmophila) paketye* spec. nov. (Figs 3a, 158, 160d)**

Description (♂). Head largely dark greyish brown; rostrum and mouth parts pale yellowish brown. Antennae with scapus, pedicellus and first flagellomere largely yellowish brown, otherwise dark greyish brown; 17 segmented. Thorax reddish- to greyish brown. Coxae greyish brown; trochanters and femora reddish- to greyish brown; tibiae, tarsi and claws greyish- to blackish brown. Wings whitish hyaline with

cells C and Sc, except for a narrow ray adjacent to C, brown and apex brown but markedly darker in cells R3 and R4 than otherwise; pterostigma brown; hardly more than dark brown spots at origin of Rs, at about 1/2 length of CuA, at 3/4 length of A1 and at 2/3 length of A2 in the corresponding cells; a dark greyish brown patch at level and including pterostigma and cord continuing narrowly along proximal, distal and posterior side of dm and along CuA1 and bscu and broadly along CuA2. Halteres with stem yellowish brown and knob greyish brown. Abdomen greyish- to blackish brown.

Dimensions. Wing length 17,5 mm.

Genitalia. Hypopygium, Figs 158, 160d.

Female unknown.

Remarks. Most similar to *G. flindersi* ALEX. The well developed, sparsely patterned wings and the boomerang-shaped convergent lateral elements of the aedeagal complex are considered diagnostic characters of male *G. paketye*.

Material examined. Holotype ♂: Victoria, Wilson's Promontory, Roaring Meg Creek, 7.11.1977, A. Neboiss (MV).

Distribution. Victoria; known only from type locality.

Name. Paketye (= Australian Aboriginal word for "boomerang") refers to the shape of the lateral element of the aedeagal complex.

***Gynoplistia (Xenolimmophila) tubrabucca* spec. nov. (Figs 13, 56, 159, 160e)**

Description. Head dark greyish brown; mouth parts yellowish- to greyish brown. Antennae greyish brown; 17 segmented in male; partly missing in the available female. Thorax reddish- to greyish brown. Coxae and trochanters reddish- to greyish brown; other leg segments (only midleg and hindleg of female preserved) dark yellowish- to greyish- and reddish brown. Wings whitish hyaline; cells C and Sc and apex brown; pterostigma dark greyish brown; pale brown incomplete cross-bands as follows: at wing base in cells R and M, very pale in male, much more conspicuous in female; a brown seam along CuA extending as a patch occupying the middle

of cell CuA and distal portion of cells A1 and A2; a square mark at origin of Sc; a conspicuous band from costal to posterior margin at level and including pterostigma and cord but leaving the centre of dm and cell CuA1 narrowly pale. Halteres with stem brownish yellow and knob greyish brown. Abdomen greyish brown.

Dimensions. Wing length, male 18,0-18,2 mm, female 16,3 mm.

Genitalia. Male hypopygium, Figs 13, 56, 159, 160e.

Remarks. Similar to all other species of *Gynoplistia* (*Xenolimnophila*). Well developed wings with extensive pale brown pattern (both sexes) and the narrow leaf-shaped and convergent lateral elements of the aedeagal complex (male) are considered diagnostic characters of *G. tubrabucca*.

Material examined. Holotype ♂: New South Wales, Tubrabucca, Upper Hunter District, 17.12.1975, G. Daniels (AM). Paratypes: New South Wales: 1 ♀, Carey's Peak, Barrington Tops, 13.2.1965, G.L. Bush (ANIC); 1 ♂, Vic. Moppy Lookout, Barrington State Forest, via Gloucester, 13.1.1991, L. Moylan and G. Williams (GT).

Distribution. New South Wales (NEN); known only from Barrington Tops.

Name. From Tubrabucca, in north-eastern New South Wales; to be treated as a noun in apposition.

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Australia

Species Index

This alphabetical list includes all names of the species group (valid species, synonyms, homonyms) in Australian *Gynoplistia*. Reference to the next higher taxon (subgenus or species group) or artificial unit as used in this paper is given by the following abbreviations:

Cer *Cerozodia* MACQ.,

Gal *Gynoplistia (Gynoplistia) alice* group,

Gan *Gynoplistia (Gynoplistia) annulata* group,

Gau *Gynoplistia (Gynoplistia) aurantiocincta* group,

Gbe *Gynoplistia (Gynoplistia) bella* group,

Gdi *Gynoplistia (Gynoplistia) distinctissima* group,

Gex *Gynoplistia (Gynoplistia) exornata* group,

Gfo *Gynoplistia (Gynoplistia) forceps* group,

Gfu *Gynoplistia (Gynoplistia) fumipennis* group,

Ghe *Gynoplistia (Gynoplistia) heroni* group,

Gho *Gynoplistia (Gynoplistia) hotooworry* group,

Gka *Gynoplistia (Gynoplistia) kaoota* group,

Gle *Gynoplistia (Gynoplistia) leai* group,

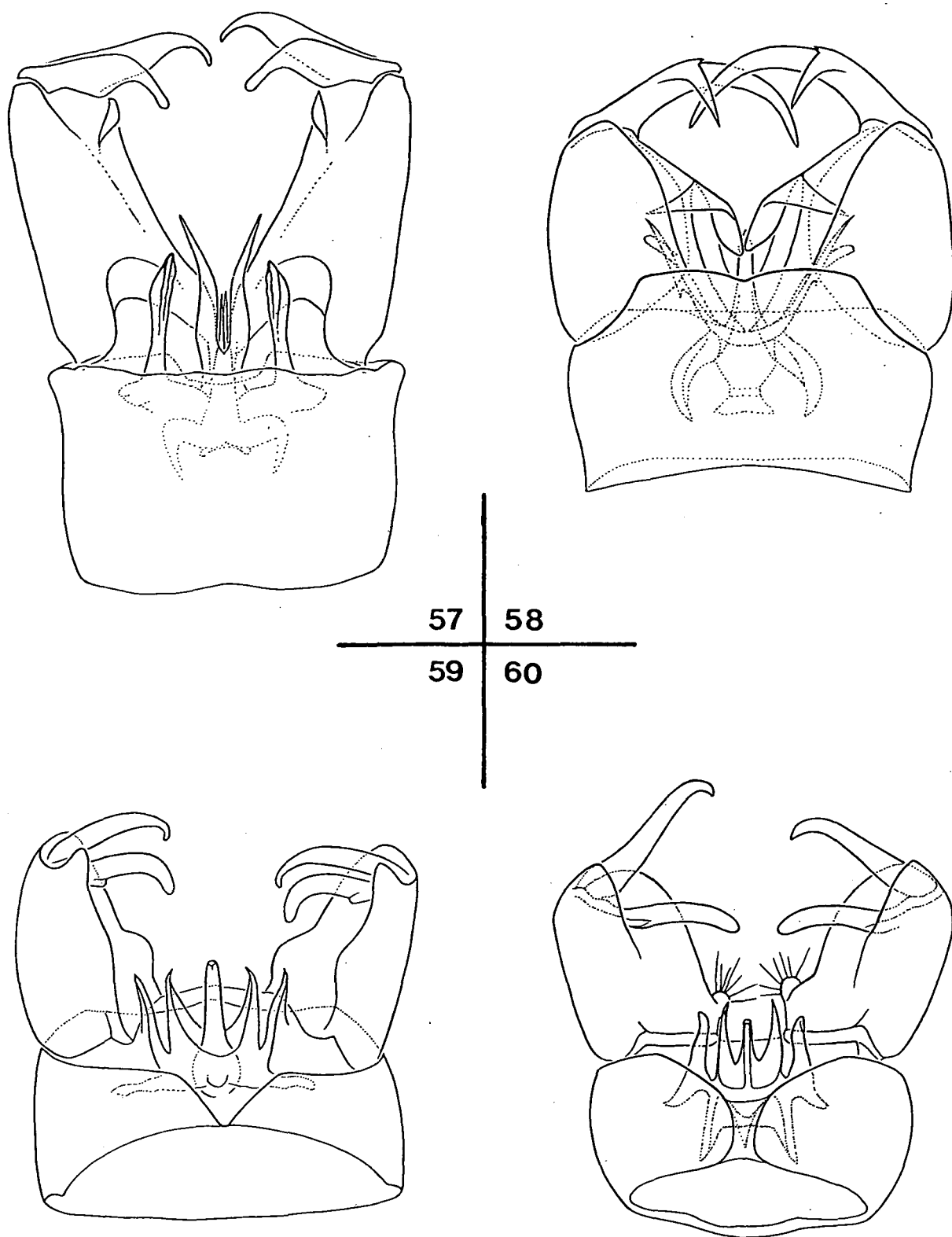
Gme *Gynoplistia* (*Gynoplistia*) *melanopyga* group,
 Gte *Gynoplistia* (*Gynoplistia*) *temuifilosa* group,
 Gvl *Gynoplistia* (*Gynoplistia*) *vilis* group,
 Gvr *Gynoplistia* (*Gynoplistia*) *viridis* group,
 Gvt *Gynoplistia* (*Gynoplistia*) *viridithorax* group,
 Gyo *Gynoplistia* (*Gynoplistia*) *yonguldye* group,
 Gze *Gynoplistia* (*Gynoplistia*) *zebrata* group,
 icG insufficiently clarified species of *Gynoplistia* (*Gynoplistia*),
 Xen *Xenolimnophila* ALEX.,

Reference is also given to the figure numbers in this paper (italics) and to the page numbers of the text (bold).

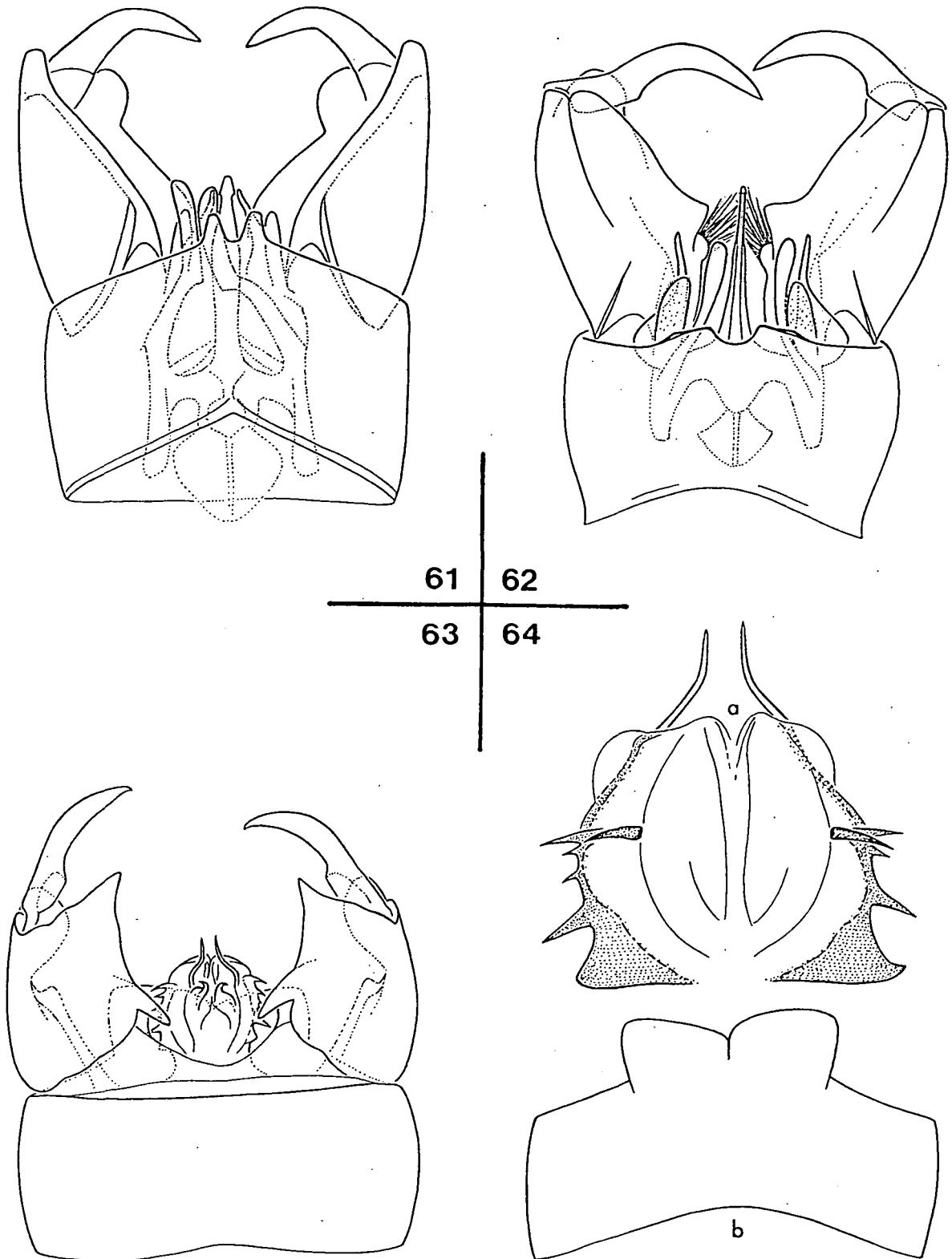
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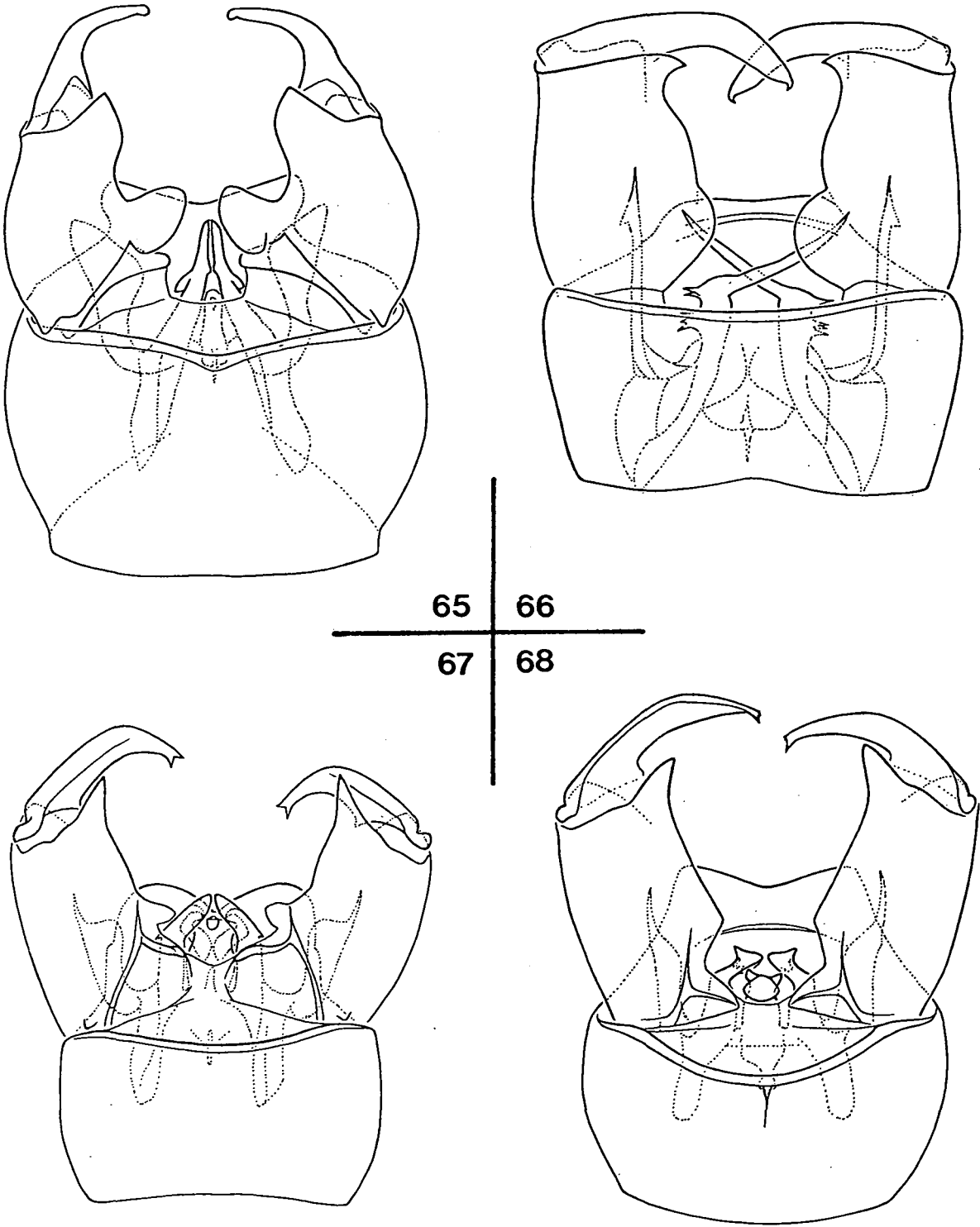
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melanopyga SCHI., Gme, 4, 90, 93a, 39
melape sp. n., Gvt, 146, 149a, 66
moma sp. n., Gvt, 134, 139b, 62
murdiella sp. n., Gvt, 147, 149b, 67
myallensis ALEX. (= *vilis* WALK.)
narkale sp. n., Gme, 96, 97c, 42
neboissi sp. n., Gle, 88, 38
nervosa WEST. (= *vilis* WALK.)
nicholsoni ALEX., icG, 73
ngende sp. n., Gvt, 129, 130f, 59
nigrina ALEX. (= *distinctissima* ALEX., ssp.), Gdi, 24
nigripennis ALEX., Gbe, 66, 21
nigrotibialis ALEX. (= *bimaculata* SKUSE)
obscurivena SKUSE, Gme, 45
ofarrelli sp. n., Gvt, 22, 51, 124, 57
opima ALEX., Gme, 16, 48, 91, 93b, 40
paketye sp. n., Xen, 3a, 158, 160d, 76
pallidapicalis ALEX. (= *bella* WALK.)
pallidicosta ALEX., Gme, 92, 93c, 41
paluma sp. n., Ghe, 28, 44, 83, 34
pammelas ALEX. (= *fumipennis* WALK., ssp.), Gfu, 32
patruelis ALEX., Gvt, 135, 136, 139c, 139d, 63
patruelis patruelis ALEX., Gvt, 135, 139c, 63
persephoneia sp. n., Gte, 11b, 29, 49, 113, 49
poenghana sp. n., Gvt, 32, 52, 132, 61
quagga sp. n., Gze, 152, 71
resplendens ALEX., Gdi, 71, 25
rieki sp. n., Gvt, 149d, 68
sculpturata ALEX., Gvt, 144, 145d, 66
simplex ALEX. (= *cyanea* MACQ. 1835)
skusei ALEX., Gvt, 137, 139e, 63
subimmaculata ALEX., Gvt, 148, 149c, 67
subinfuscata ALEX. (= *fumipennis fumipennis* WALK.)
tasmanica ssp. n., (= *chadwicki* sp. n., ssp.), Gbe, 22
temuifilosa ALEX., Gte, 112, 49
temuistylus ALEX., Gle, 87, 38
tillyardi ALEX., Gvt, 138, 139f, 64
tooronga sp. n., Gze, 24, 54, 154, 72
tubrabucca sp. n., Xen, 13, 56, 159, 160e, 76
umbacoora sp. n., Gau, 21, 38, 62, 17
uwinnia sp. n., icG, 74
variabilis ALEX., Gfu, 81, 33
variegata WEST. (= *bella* WALK.)
vilis WALK., Gvl, 10c, 114, 50
viridis MACQ., Gvt, 120, 123a, 54
viridithorax SKUSE, Gvt, 125, 58
westwoodi SKUSE (= *melanopyga* SCHI.)
wilsonella ALEX., Gvl, 118, 53
womba sp. n., Gvt, 131, 60
woombye sp. n., Gvl, 116d, 119, 53
yanka sp. n., Gme, 110, 111, 47
yanka yanka sp. et ssp. n., Gme, 110, 48
yarra sp. n., Gze, 6, 153, 71
yarrumba sp. n., Gbe, 69, 23
yonguldye sp. n., Gyo, 20, 53, 151, 70
zaluscodes ALEX., Xen, 75
zebrata ALEX., Gze, 71



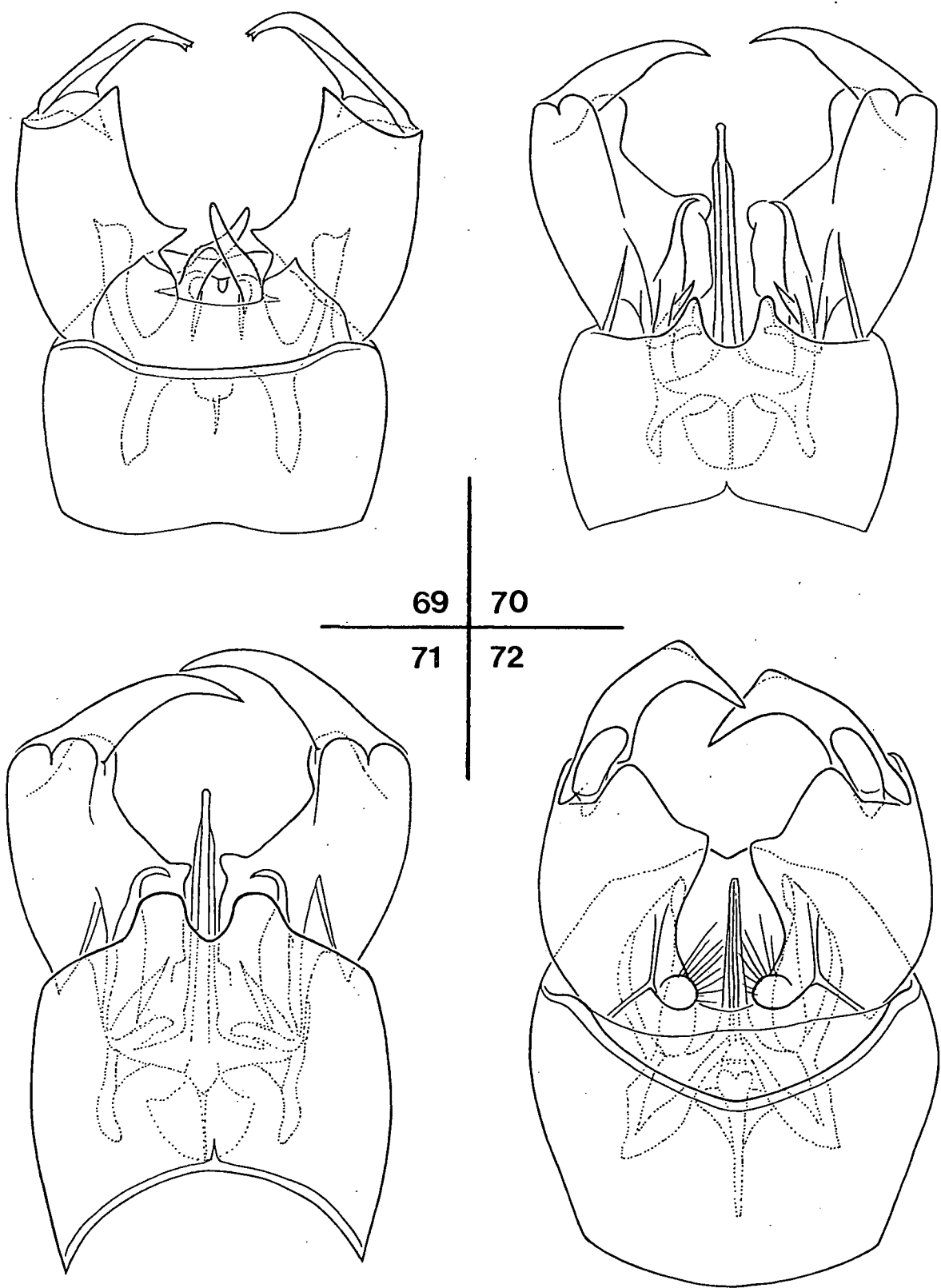
Figs 57-60. Male hypopygium of *Gynoplistia* species, dorsal aspect: 57, *Gynoplistia* (*Cerozodia*) *interrupta* (Macq.); - 58, *Gynoplistia* (*Gynoplistia*) *alice* sp.n.; - 59, *G. (G.) annulata* Macq.; - 60, *G. (G.) galbraithae* Alex.



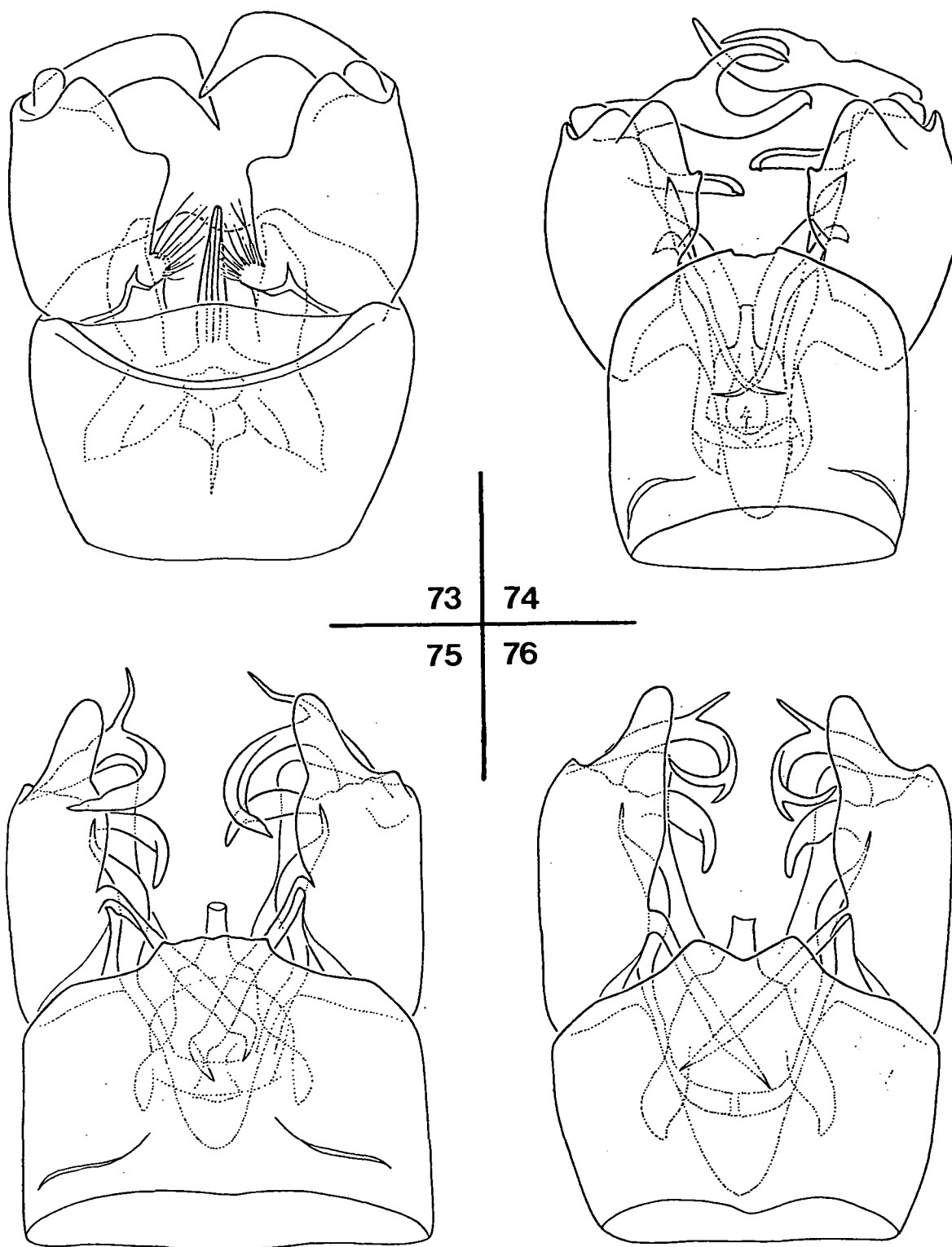
Figs 61-63. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species: 61, *G. aurantiocincta* ALEX., dorsal aspect; - 62, *G. umbacoora* sp. n., dorsal aspect; - 63, *G. bella* (WALK.), ventral aspect. Fig. 64. *Gynoplistia* (*Gynoplistia*) *bella* (WALK.): a, aedeagus, dorsal aspect; - b, tergite 9.



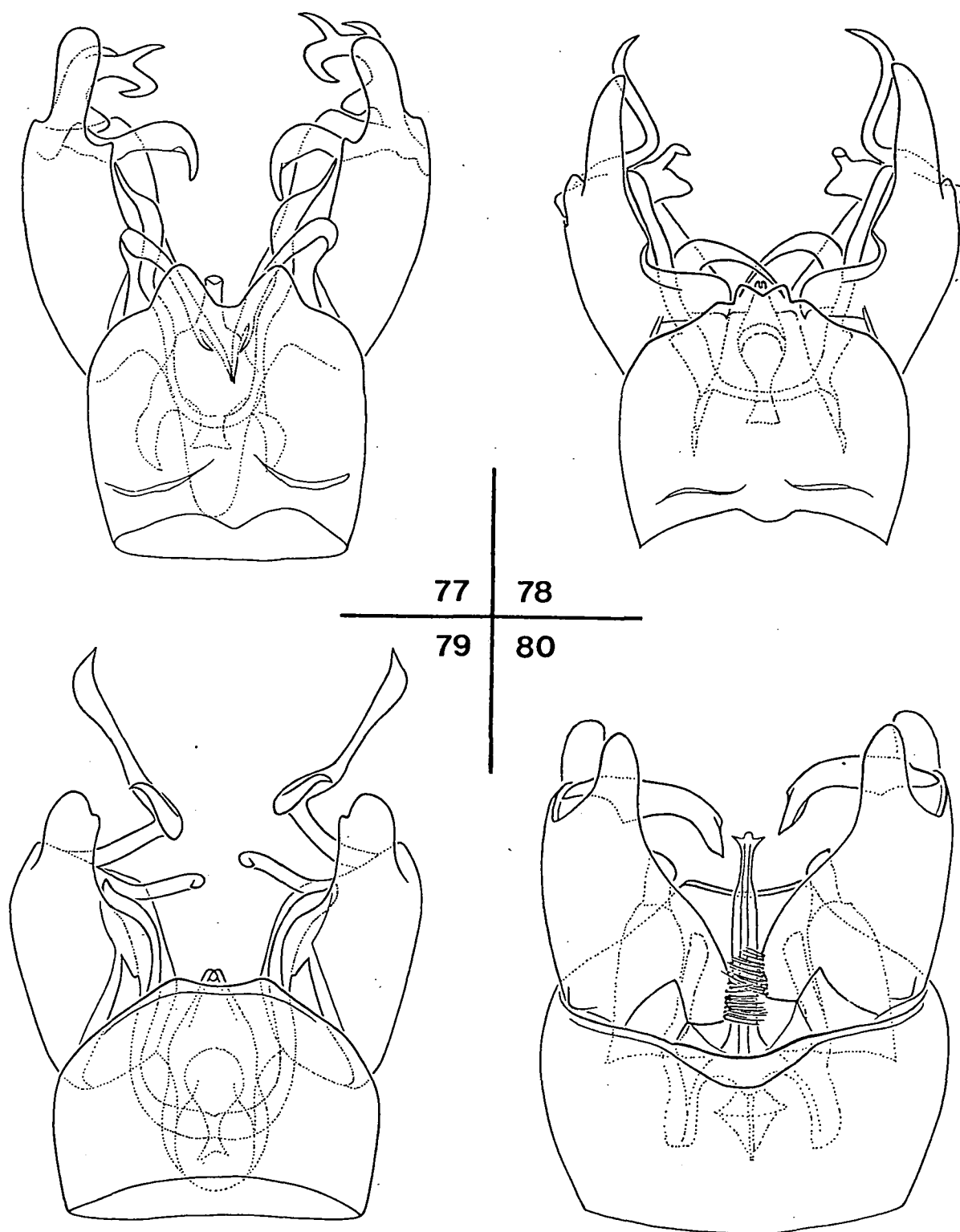
Figs 65-68. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species, ventral aspect: 65, *G. marpanye* sp. n.; - 66, *G. nigripennis* ALEX.; - 67, *G. chadwicki* sp. et ssp. n.; - 68, *G. clarki* ALEX.



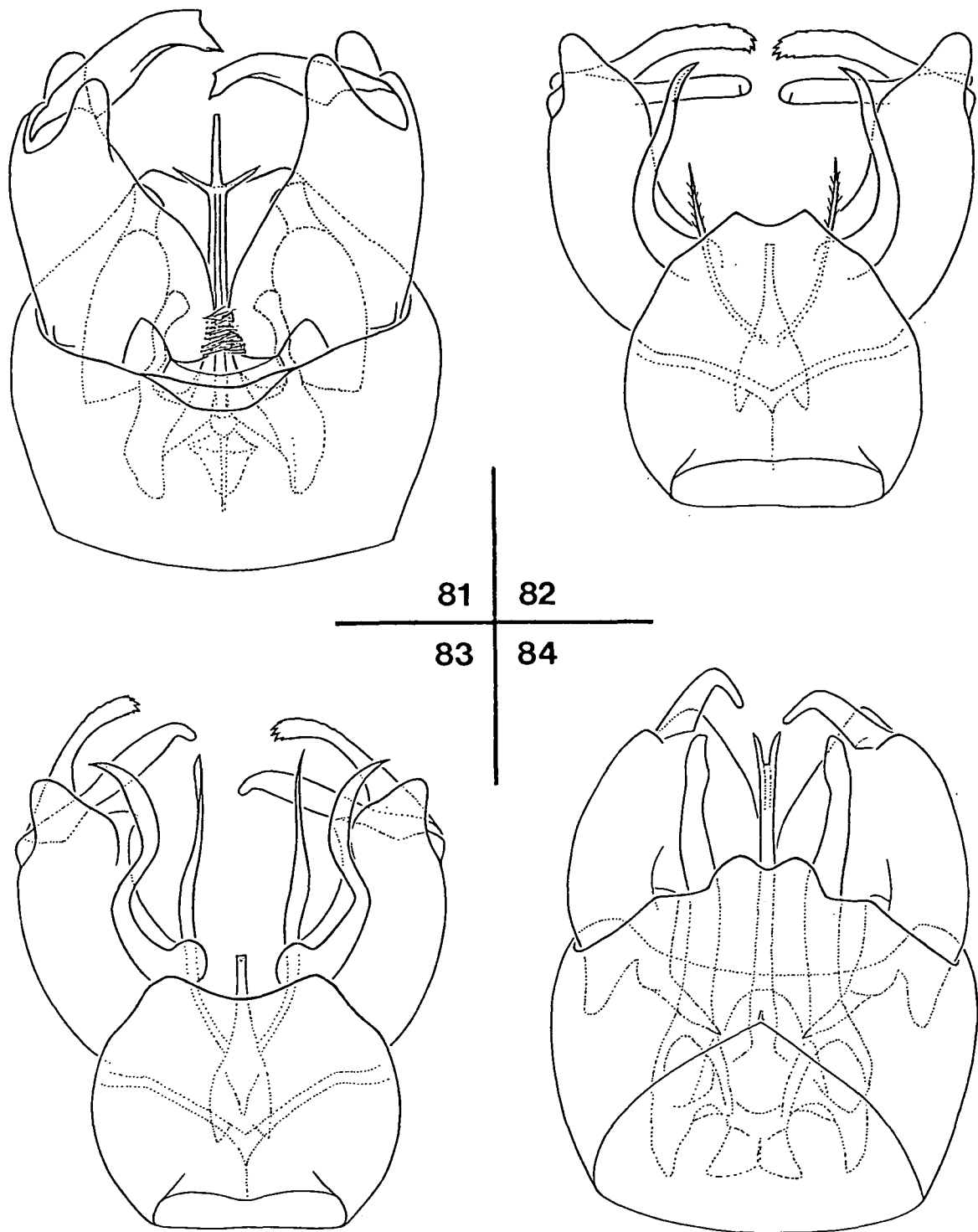
Figs 69-72. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species: 69, *G. yarrumba* sp. n., ventral aspect; - 70, *G. distinctissima distinctissima* ALEX., dorsal aspect; - 71, *G. resplendens* ALEX., dorsal aspect; - 72, *G. exornata* ALEX., ventral aspect.



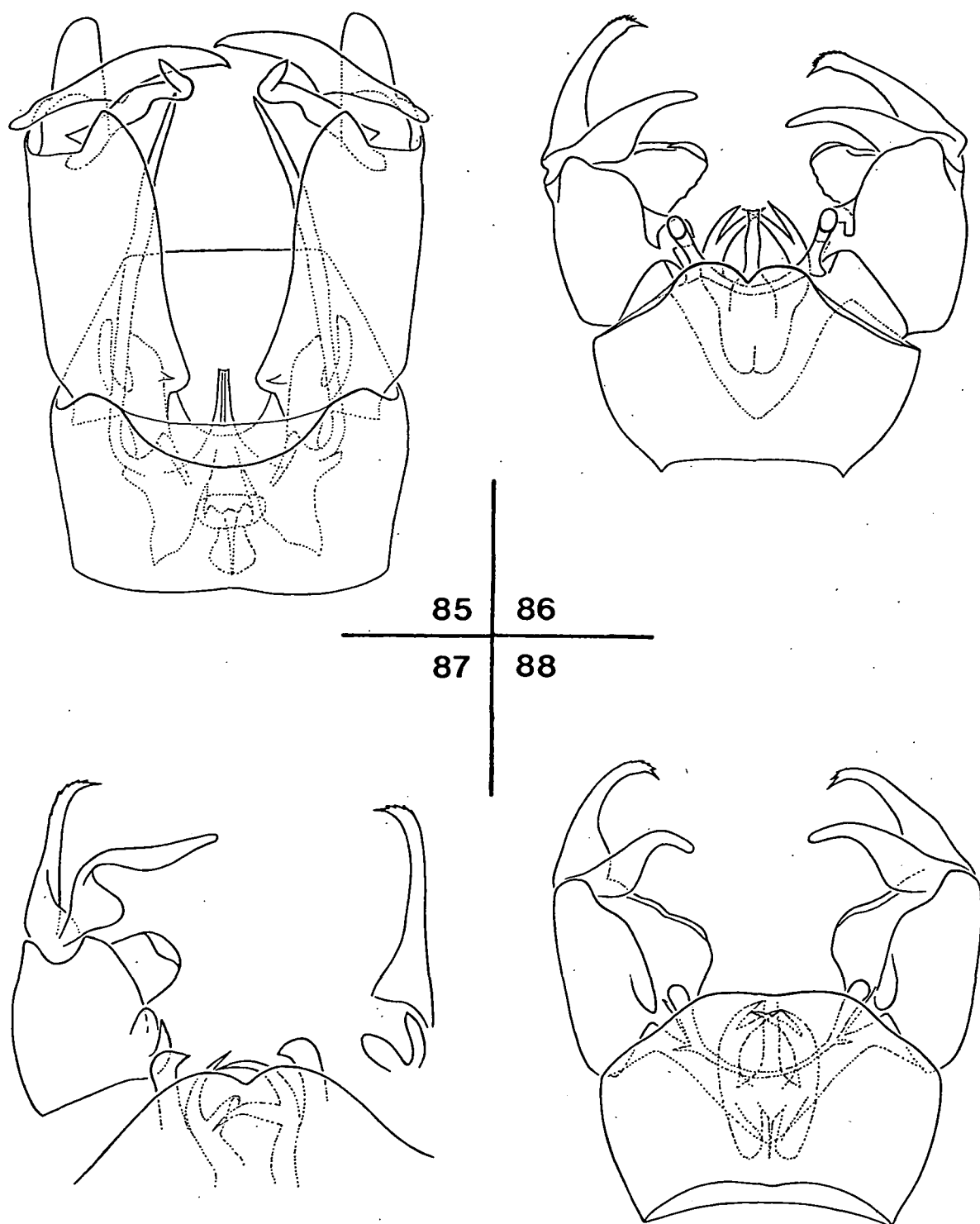
Figs 73-76. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species: 73, *G. kua* sp. n., ventral aspect; - 74, *G. forceps* ALEX., dorsal aspect; - 75, *G. erinundra* sp. n., dorsal aspect; - 76, *G. capreolus* sp.n., dorsal aspect.



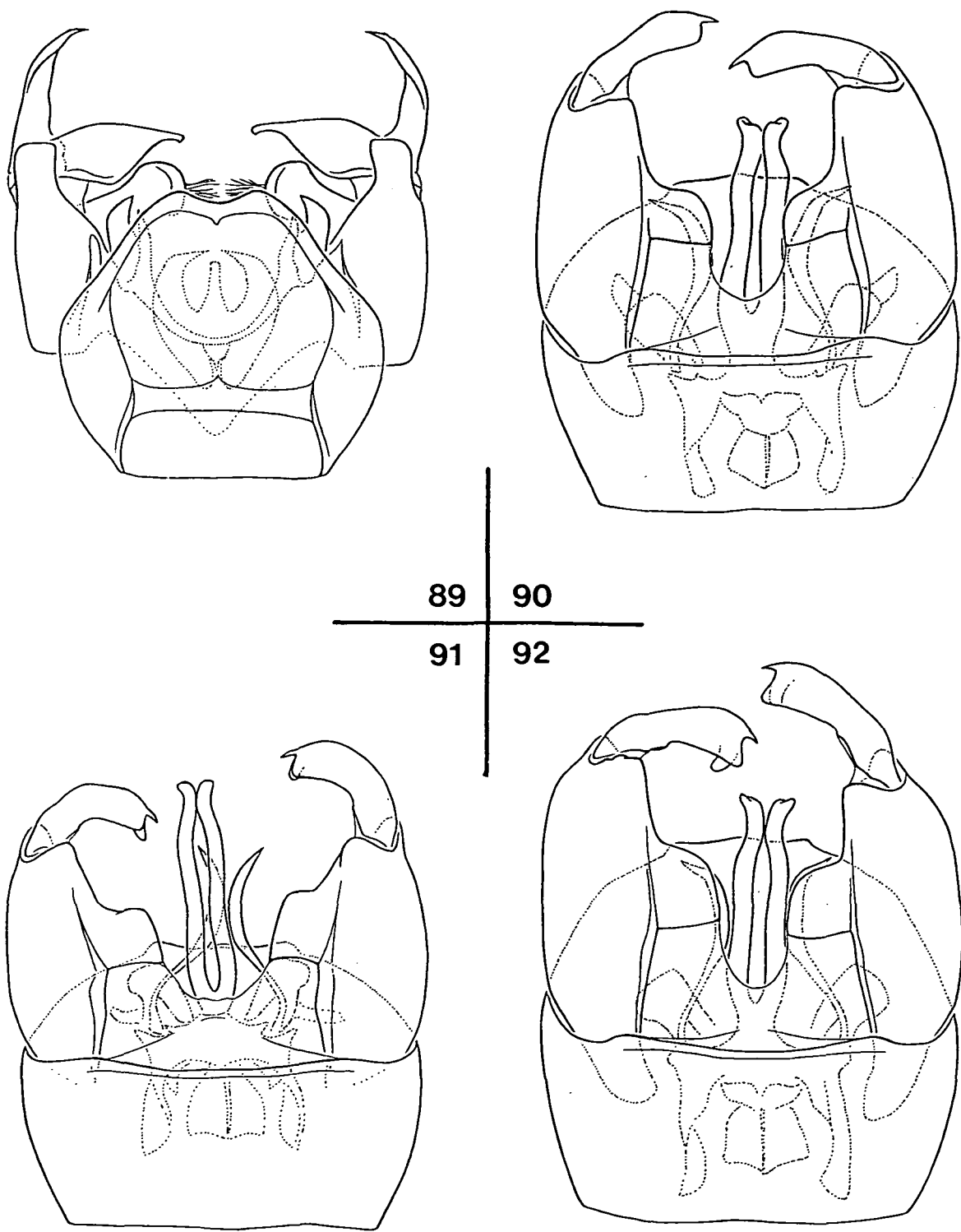
Figs 77-80. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species: 77, *G. gingera* sp. n., dorsal aspect; - 78, *G. bickeli* sp. n., dorsal aspect; - 79, *G. elaphus* sp. n., dorsal aspect; - 80, *G. fumipennis fumipennis* WALK., ventral aspect.



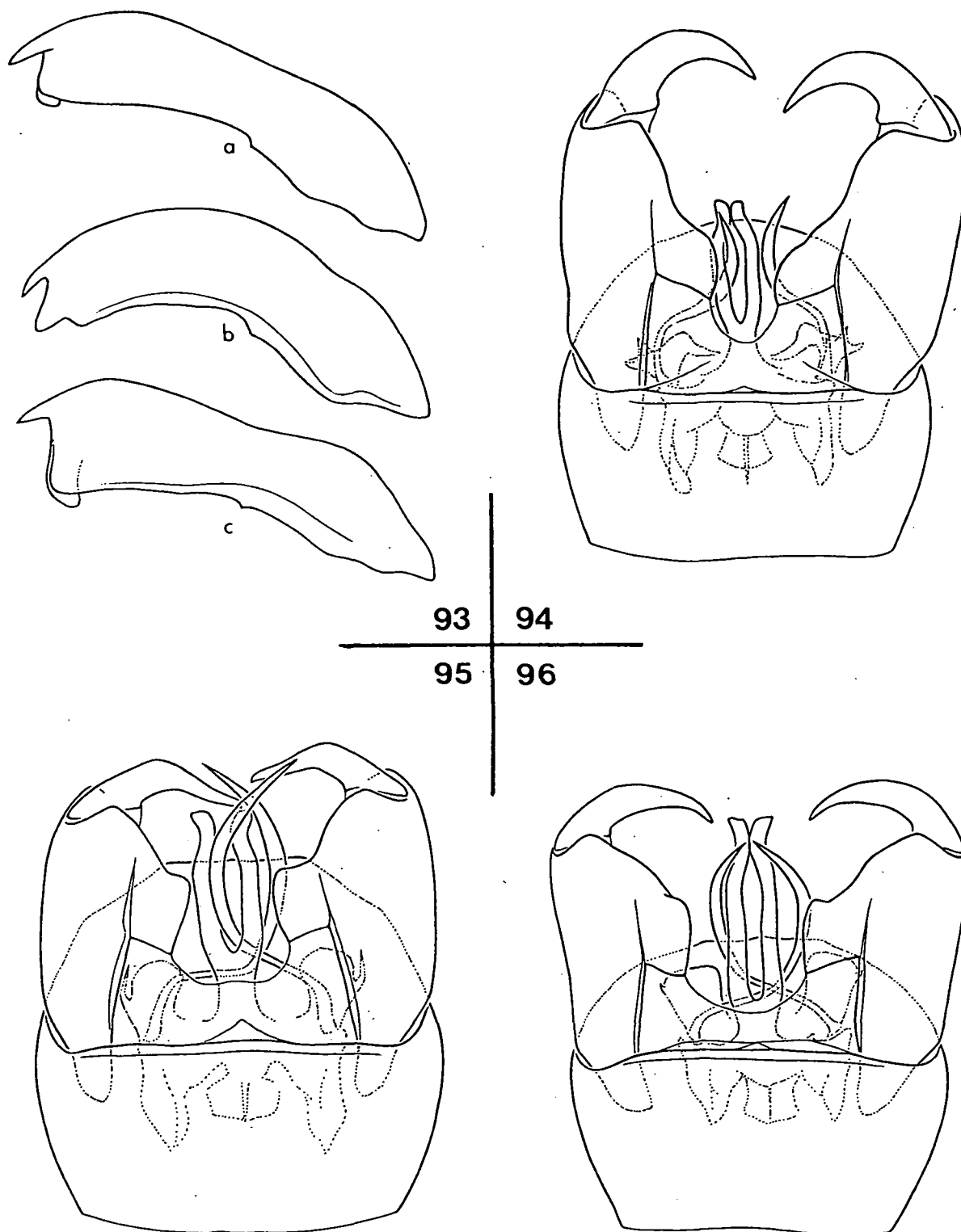
Figs 81-84. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species: 81, *G. variabilis* ALEX., ventral aspect; - 82, *G. heroni* ALEX., dorsal aspect; - 83, *G. paluma* sp. n., dorsal aspect; - 84, *G. hotooworry* sp. n., dorsal aspect.



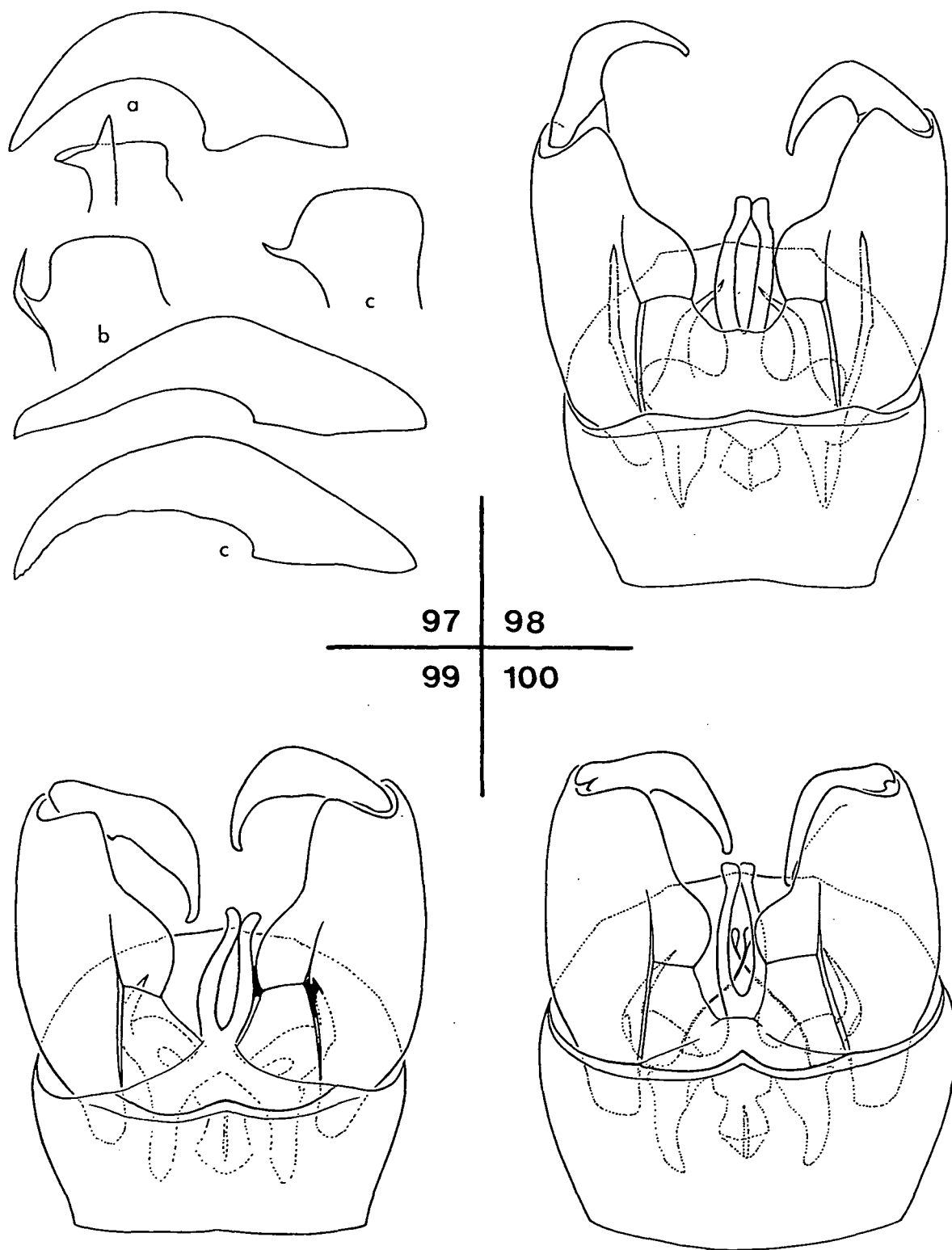
Figs 85-88. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species: 85, *G. kaoota* sp. n., ventral aspect; - 86, *G. leai* (ALEX.), dorsal aspect; - 87, *G. tenuistylus* ALEX., dorsal aspect (from slide); - 88, *G. nevoissi* sp. n., dorsal aspect.



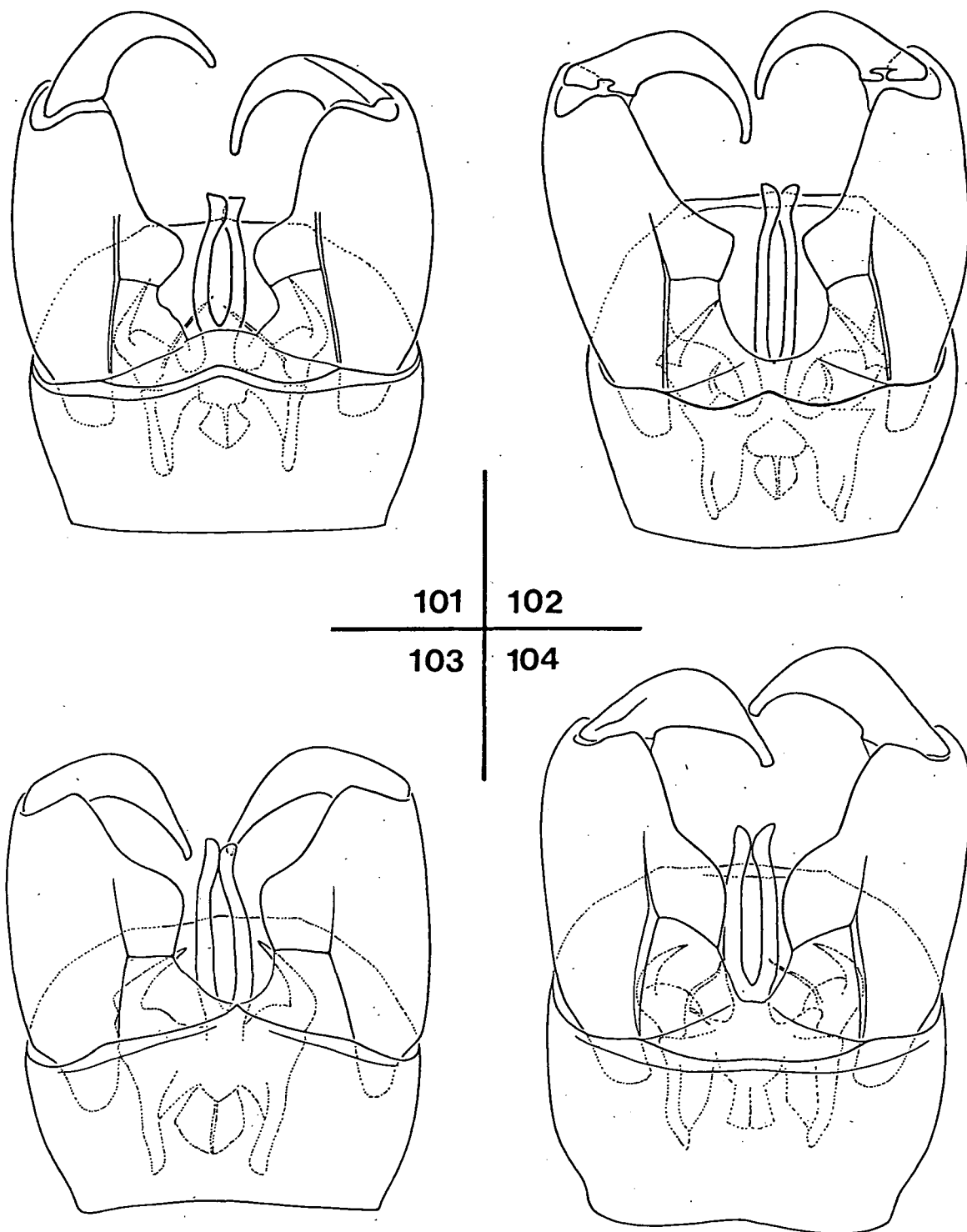
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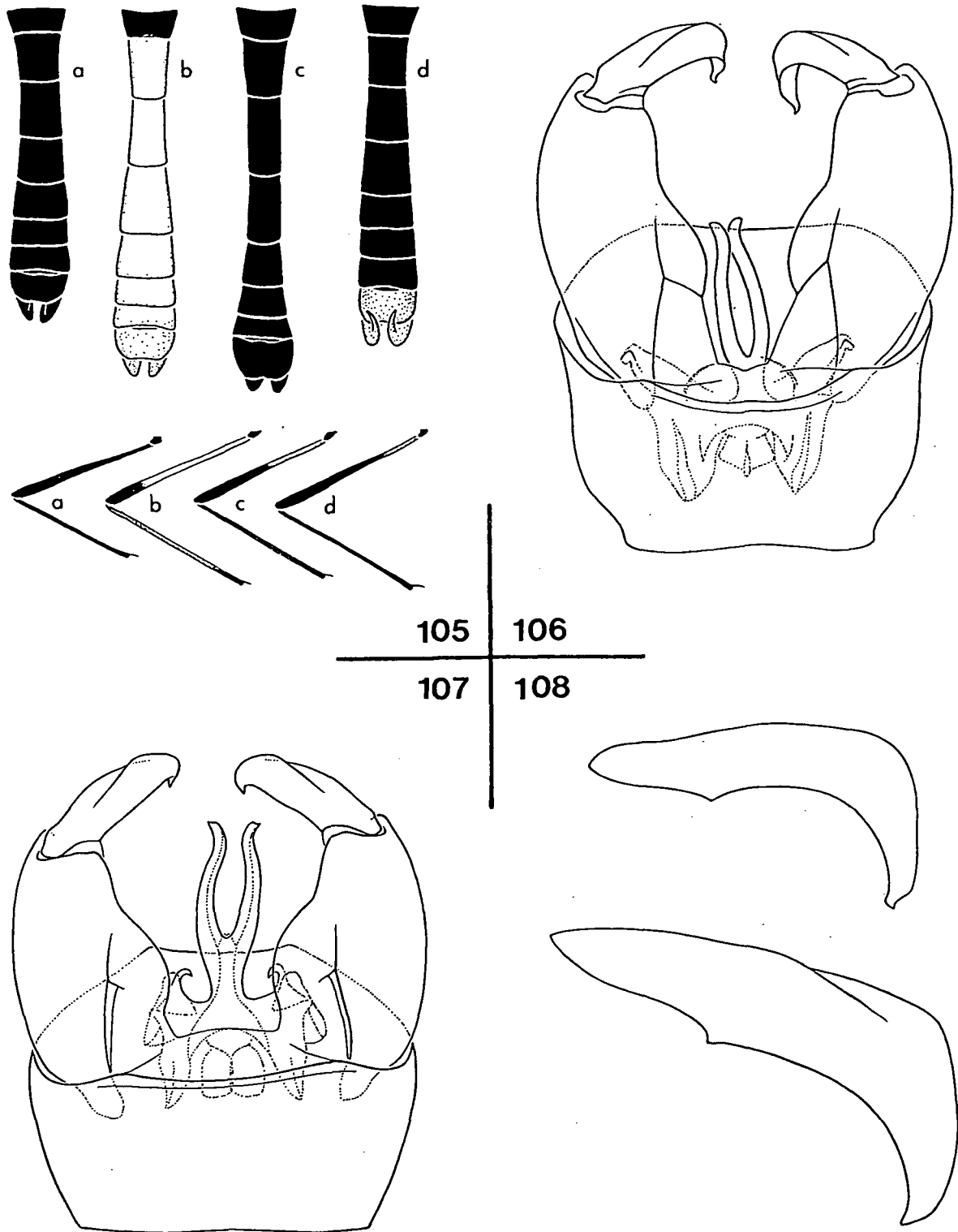
Figs 93-96. *Gynoplistia* (*Gynoplistia*) species: 93, gonostylus: a, *G. melanopyga* SCHI.; - b, *G. opima* ALEX.; - c, *G. pallidicosta* ALEX. 94-96, male hypopygium, ventral aspect: 94, *G. gnamma* sp. n.; - 95, *G. lowanna* sp. n.; - 96, *G. narkale* sp. n.



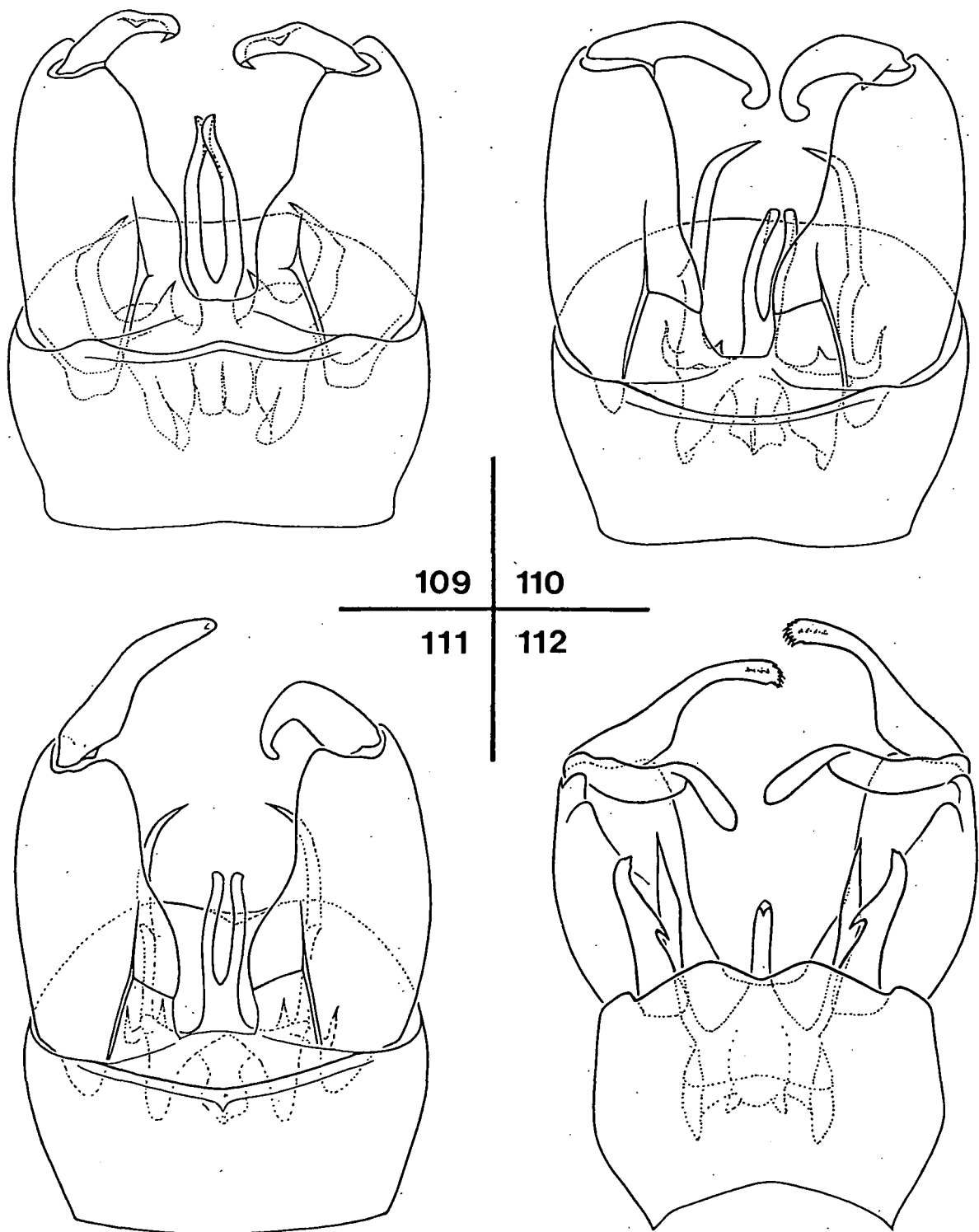
Figs 97-100. *Gynoplistia* (*Gynoplistia*) species: 97, gonostylus and part of outer lateral element of aedeagal complex, ventral aspect: a, *G. gnamma* sp. n.; - b, *G. lowanna* sp. n.; - c, *G. narkale* sp. n.; - 98-100, male hypopygium, ventral aspect: 98, *G. drekurmi* sp. n.; - 99, *G. biangri* sp. n.; - 100, *G. bimaculata* Skuse, from Tubrabucca, New South Wales.



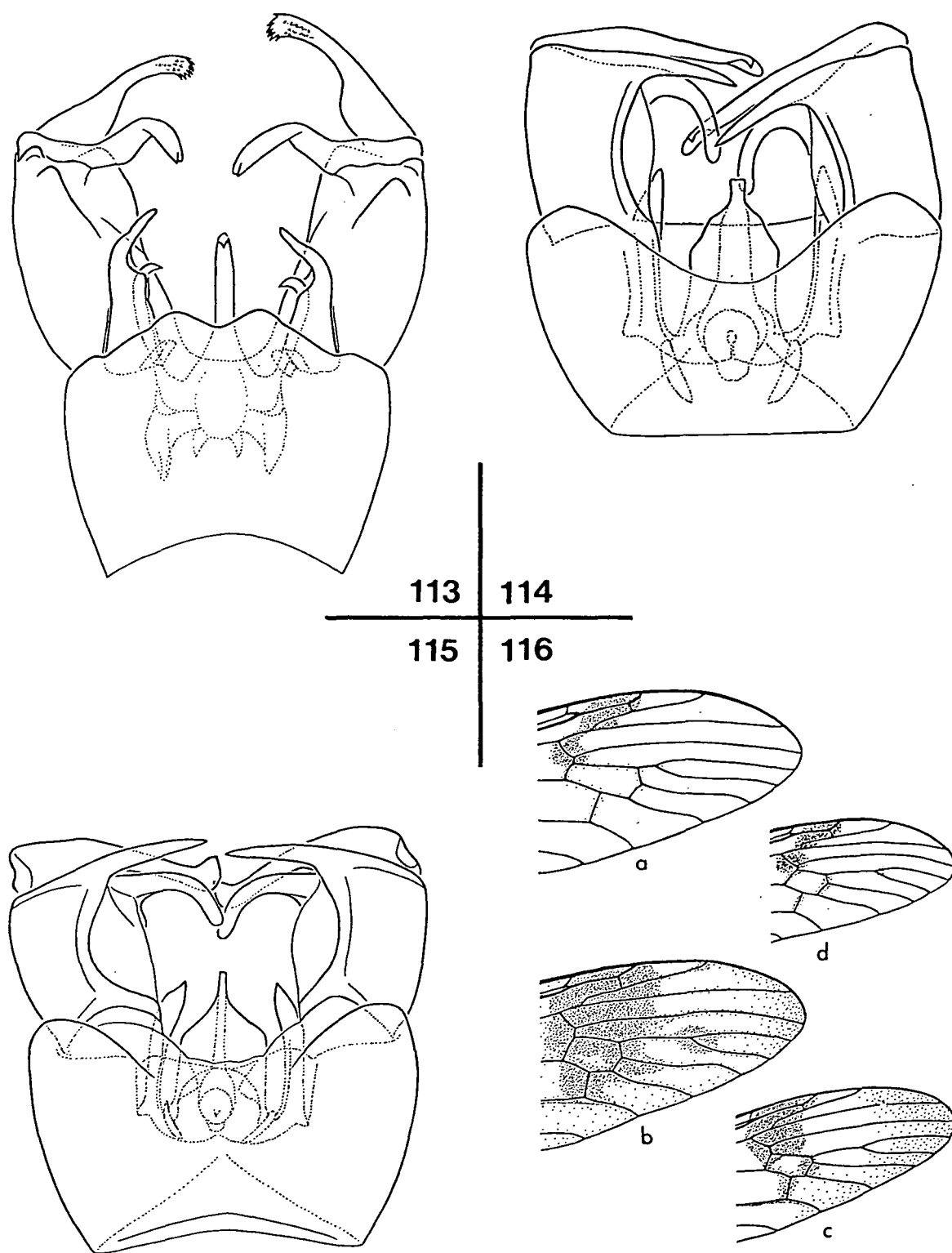
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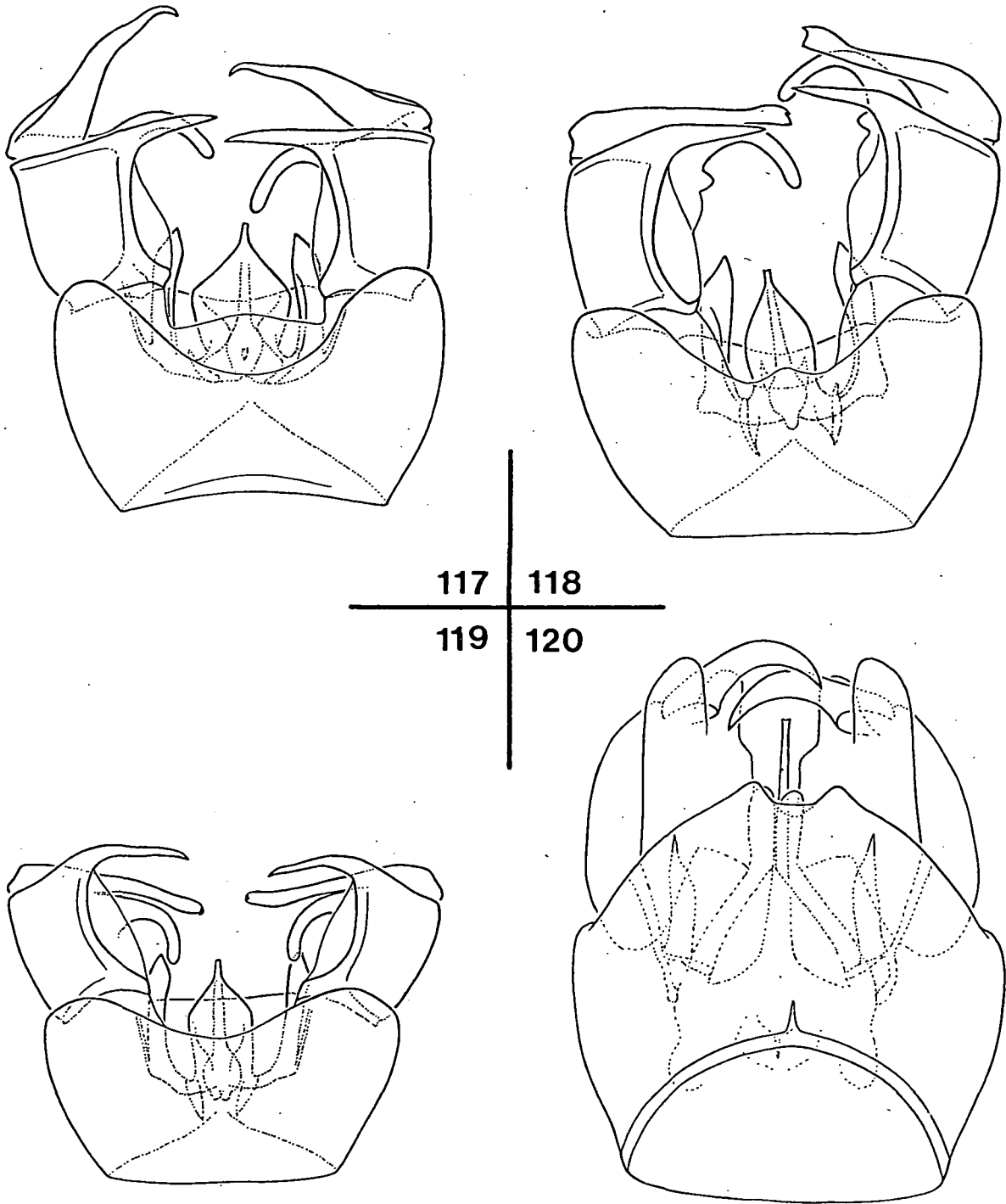
Figs 105-108. *Gynoplistia* (*Gynoplistia*) species: 105, pattern of abdomen and hindleg, male: a, *G. biangri* sp. n.; - b, *G. bimaculata* SKUSE; - c, *G. cyanea* MACQ.; - d, *G. kiandra* sp. n. - 106, 107, male hypopygium, ventral aspect: 106, *G. boomerang* sp. n.; 107, *G. cultrata* ALEX.; - 108, gonostylus: a, *G. boomerang* sp. n.; -b, *G. cultrata* ALEX.



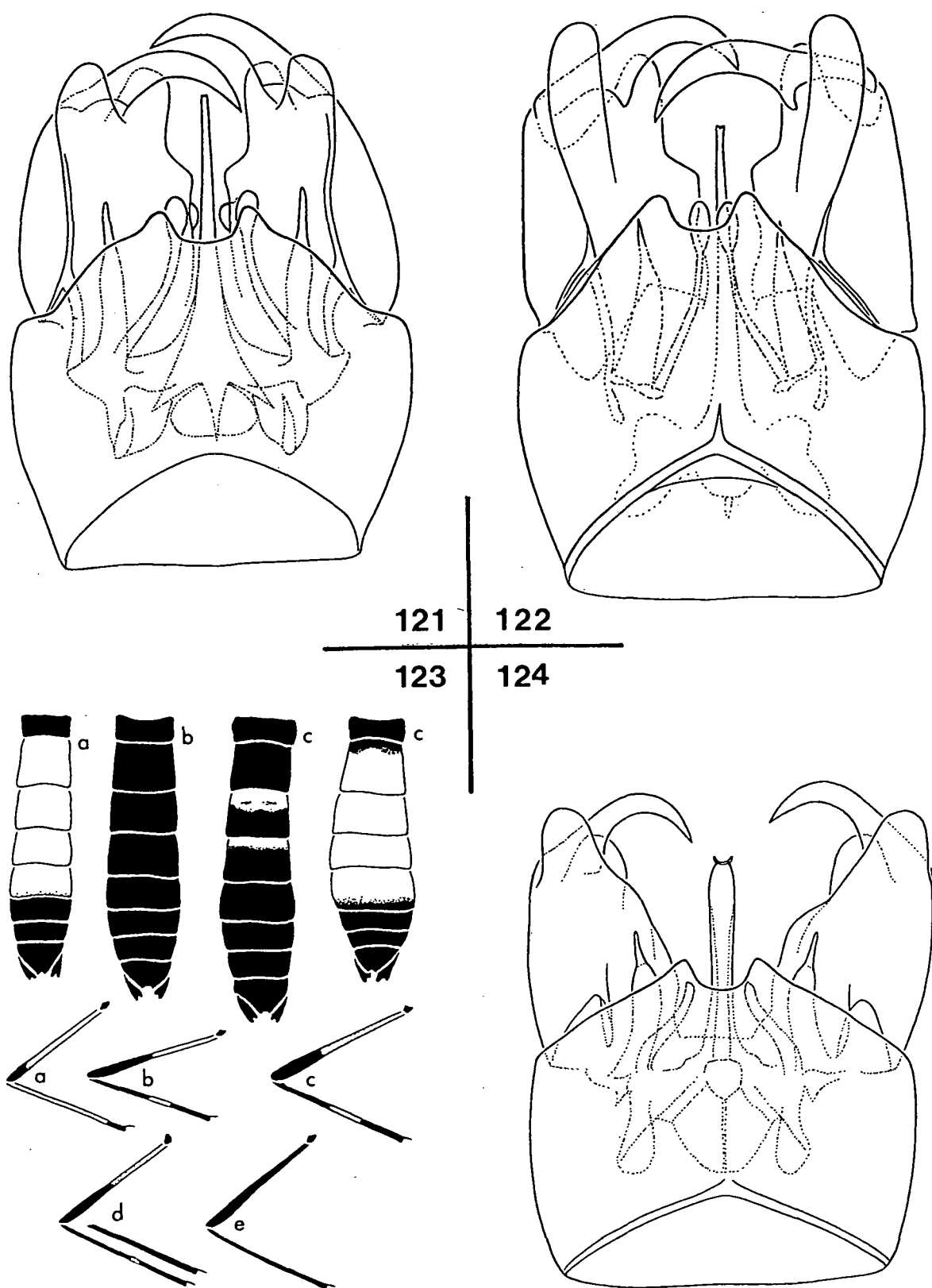
Figs 109-112. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species: 109, *G. fulviventris* ALEX., ventral aspect; - 110, *G. yanka yanka* sp. et ssp. n., ventral aspect; - 111, *G. yanka bilobata* ssp. n., ventral aspect; - 112, *G. tenuifilosa* ALEX., dorsal aspect.



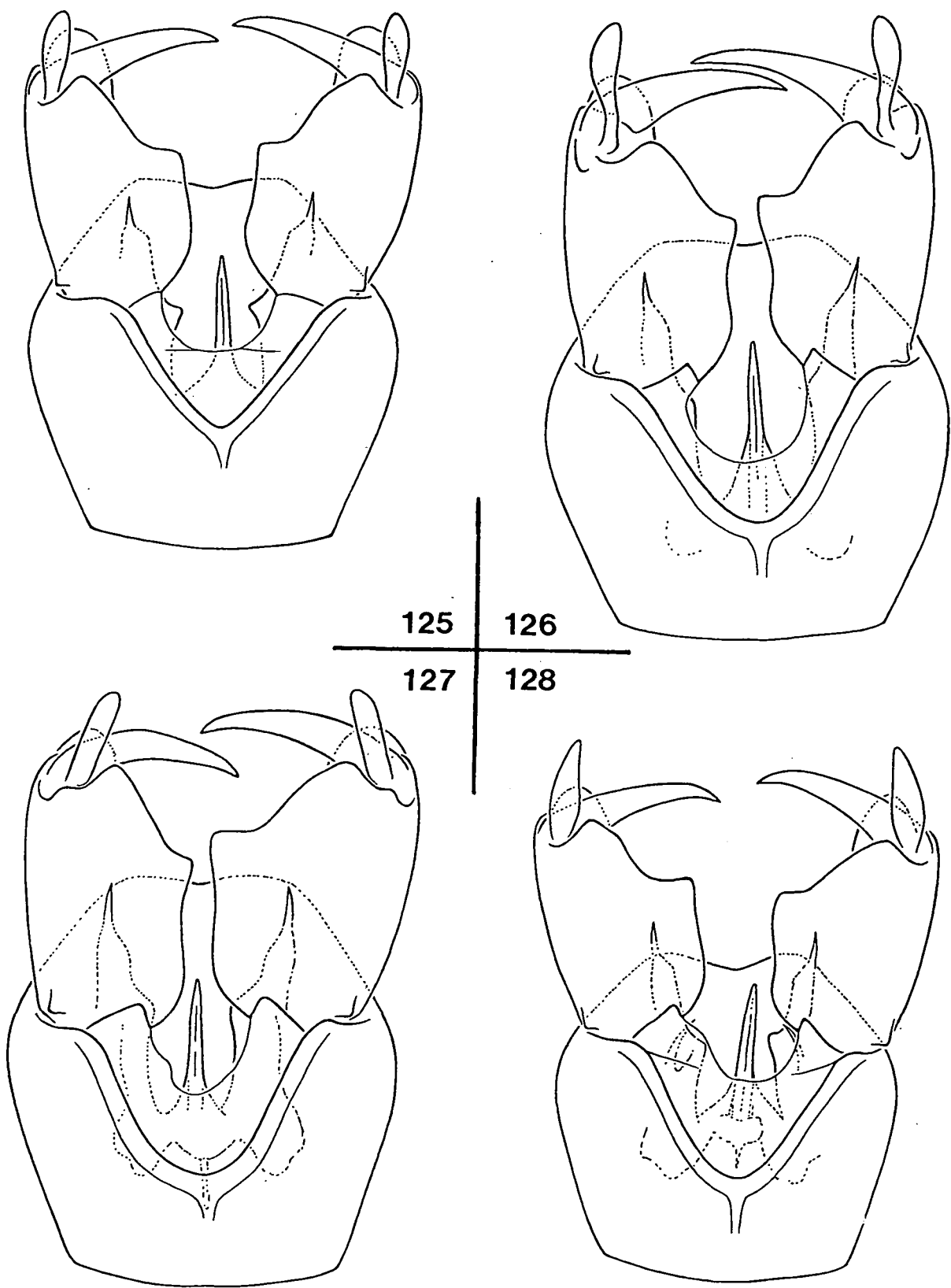
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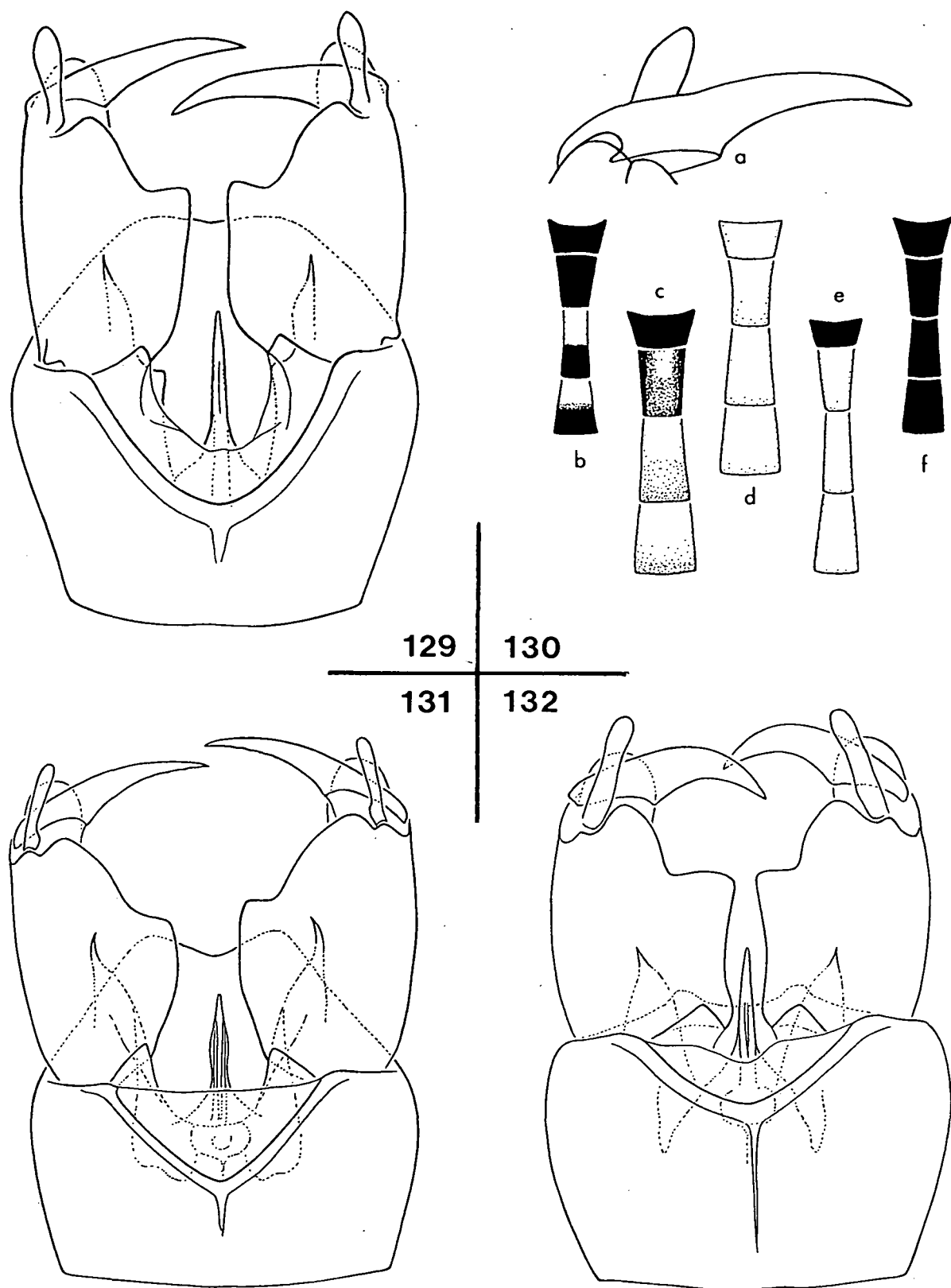
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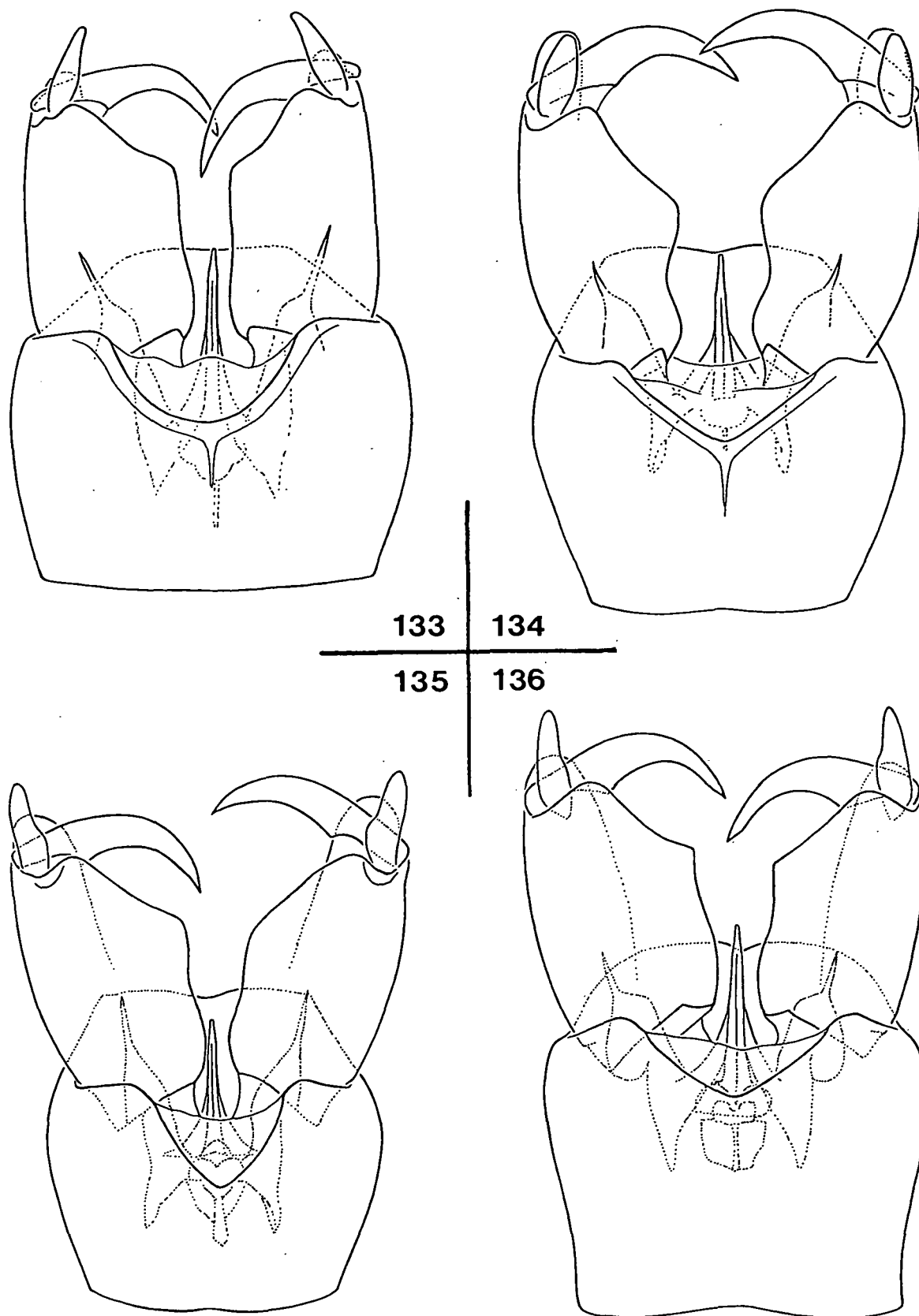
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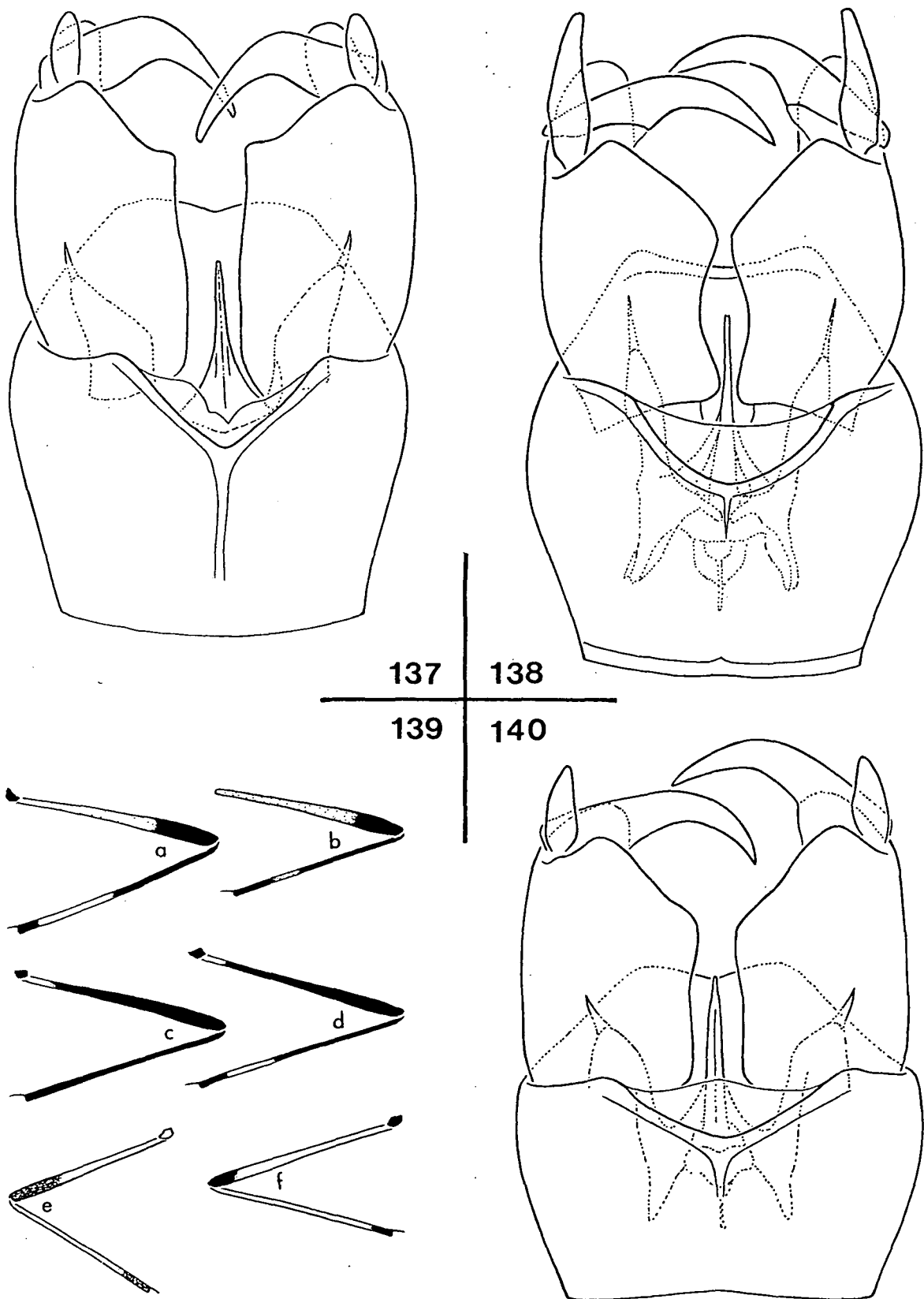
Figs 125-128. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species, ventral aspect: 125, *G. viridithorax* SKUSE; - 126, *G. alpigena* ALEX.; - 127, *G. fulva* sp. n.; - 128, *G. isolata* sp. n.



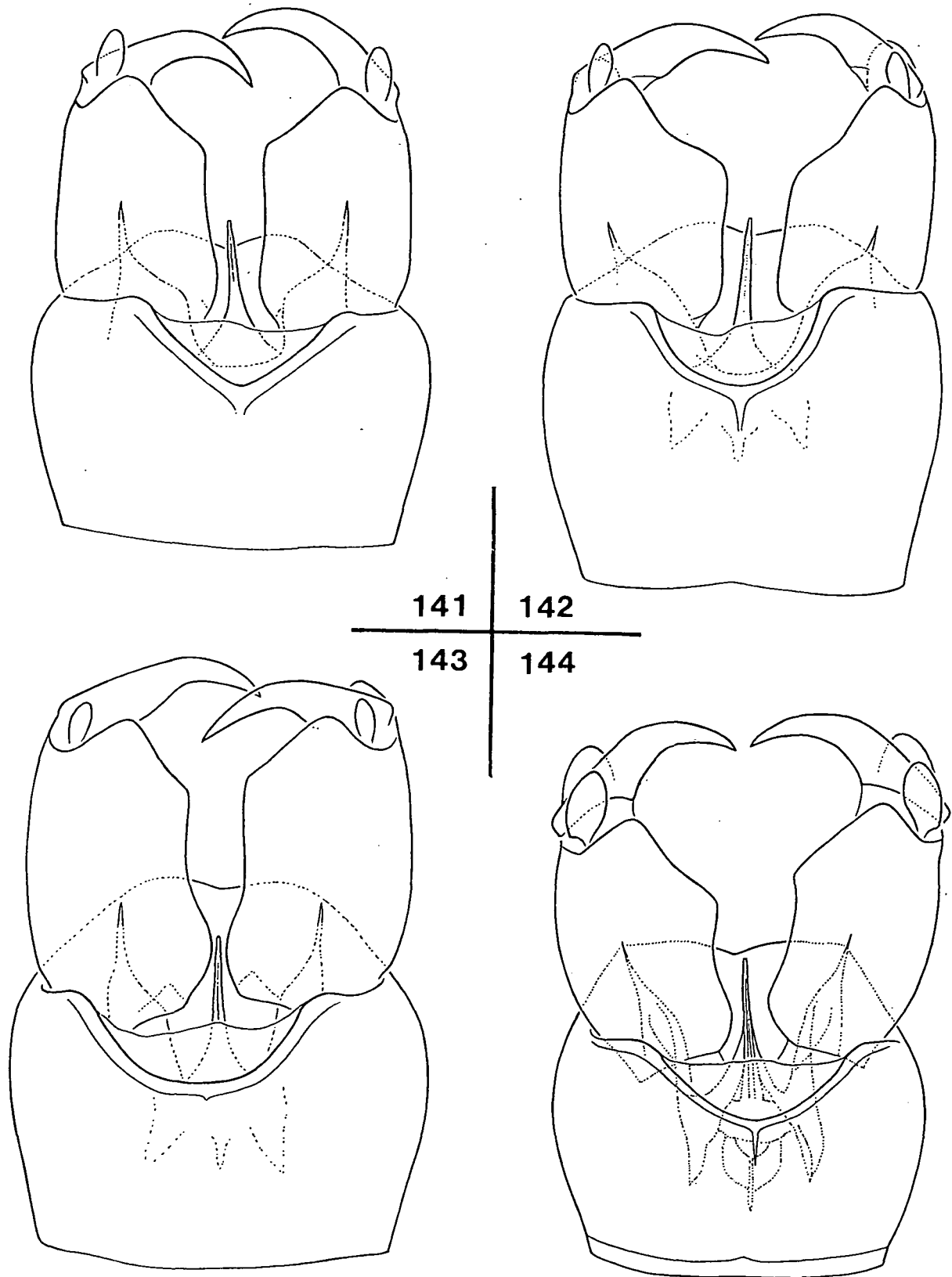
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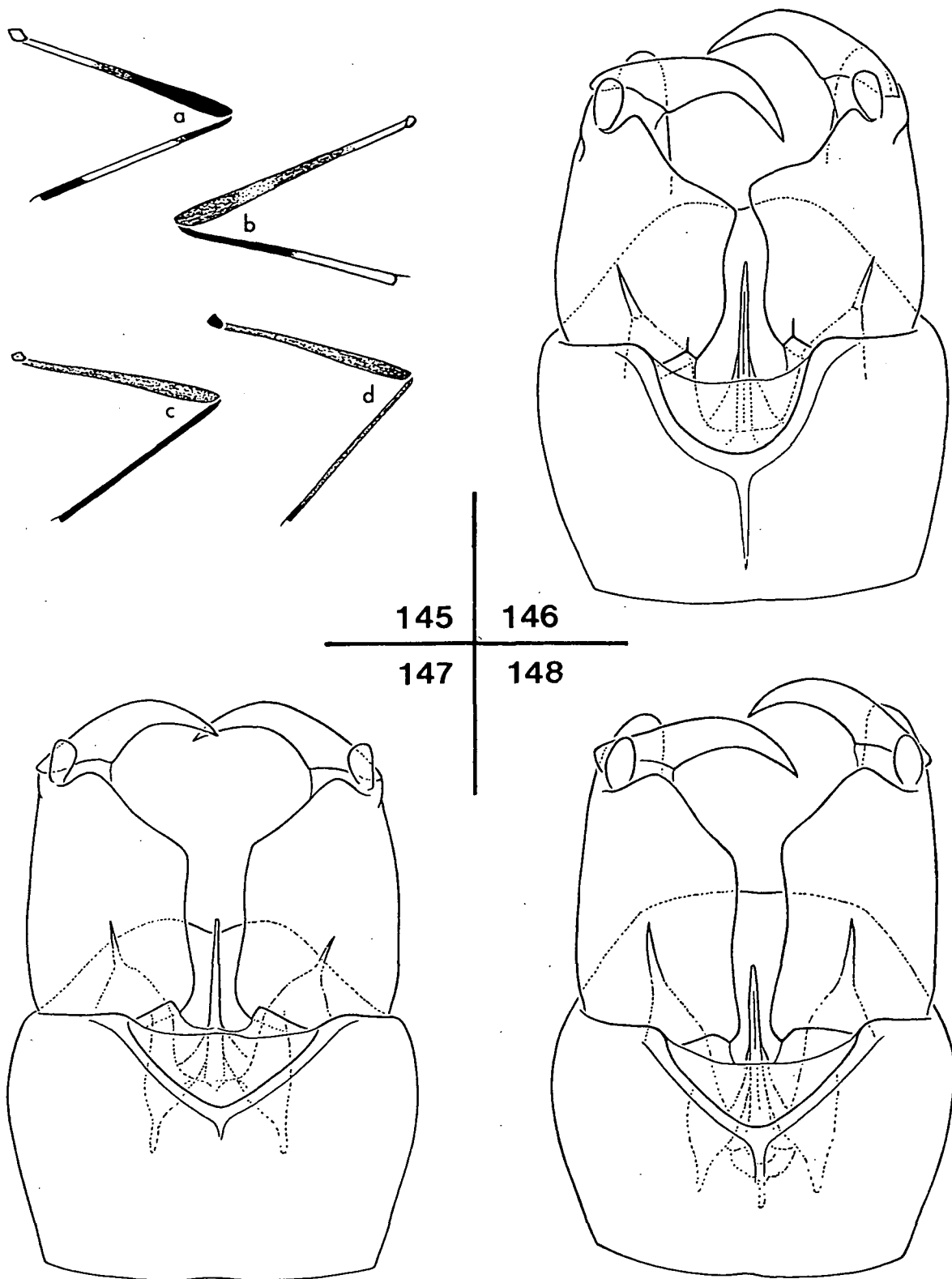
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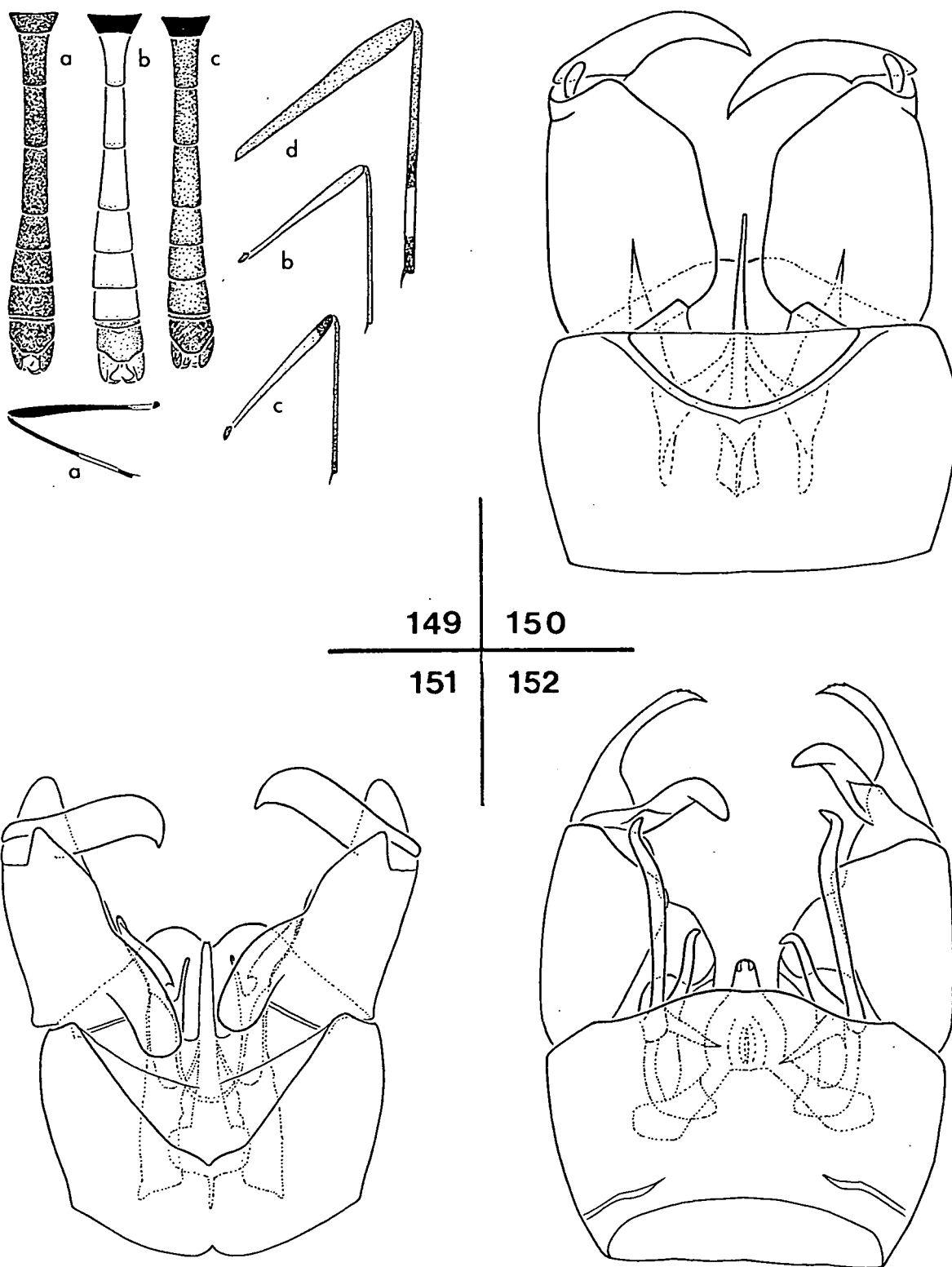
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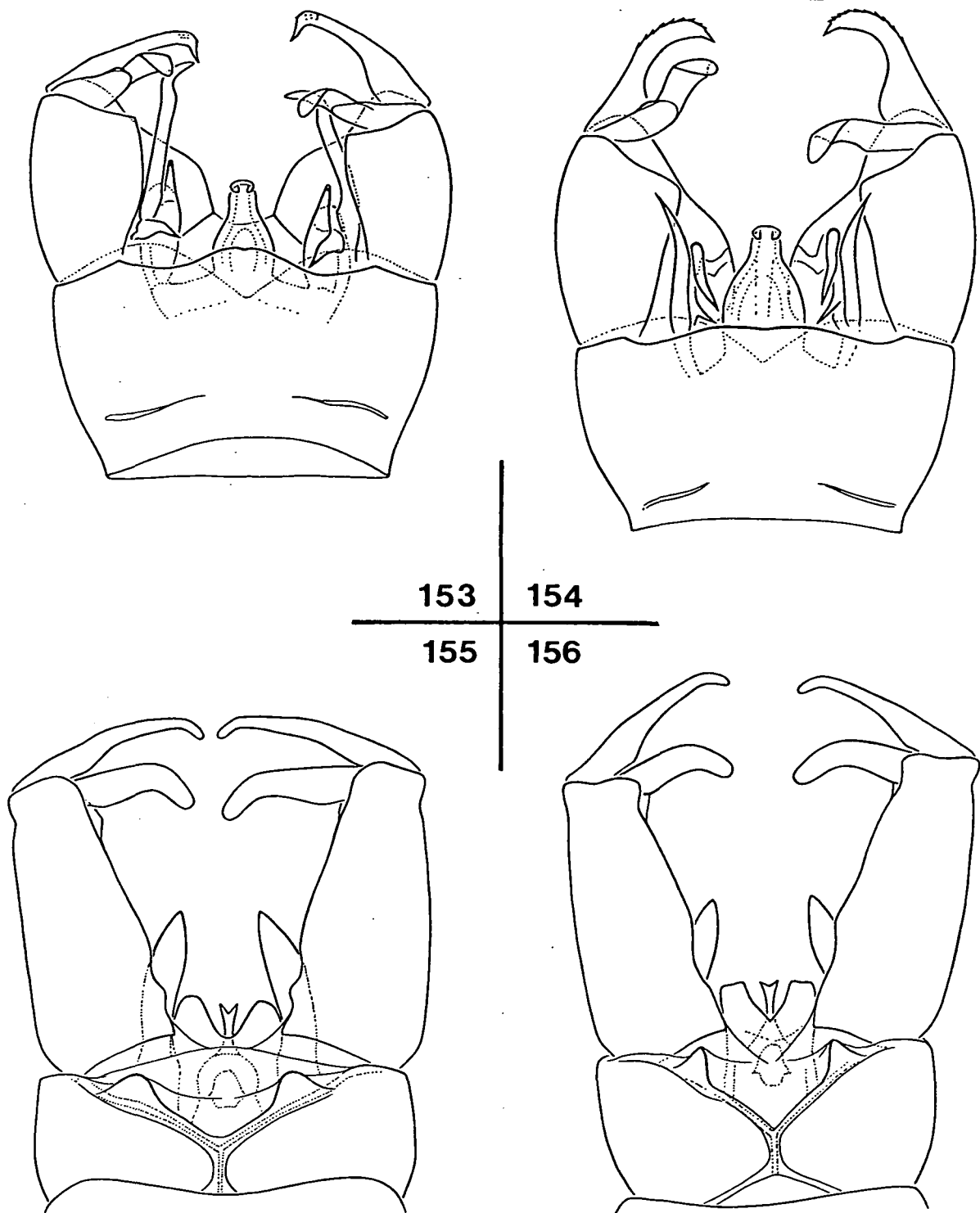
Figs 141-144. Male hypopygium of *Gynoplistia* (*Gynoplistia*) species, ventral aspect: 141, *G. flavipes* sp. n.; - 142, *G. flavofemorata* ALEX.; - 143, *G. frazieri* sp. n.; - 144, *G. sculpturata* ALEX.



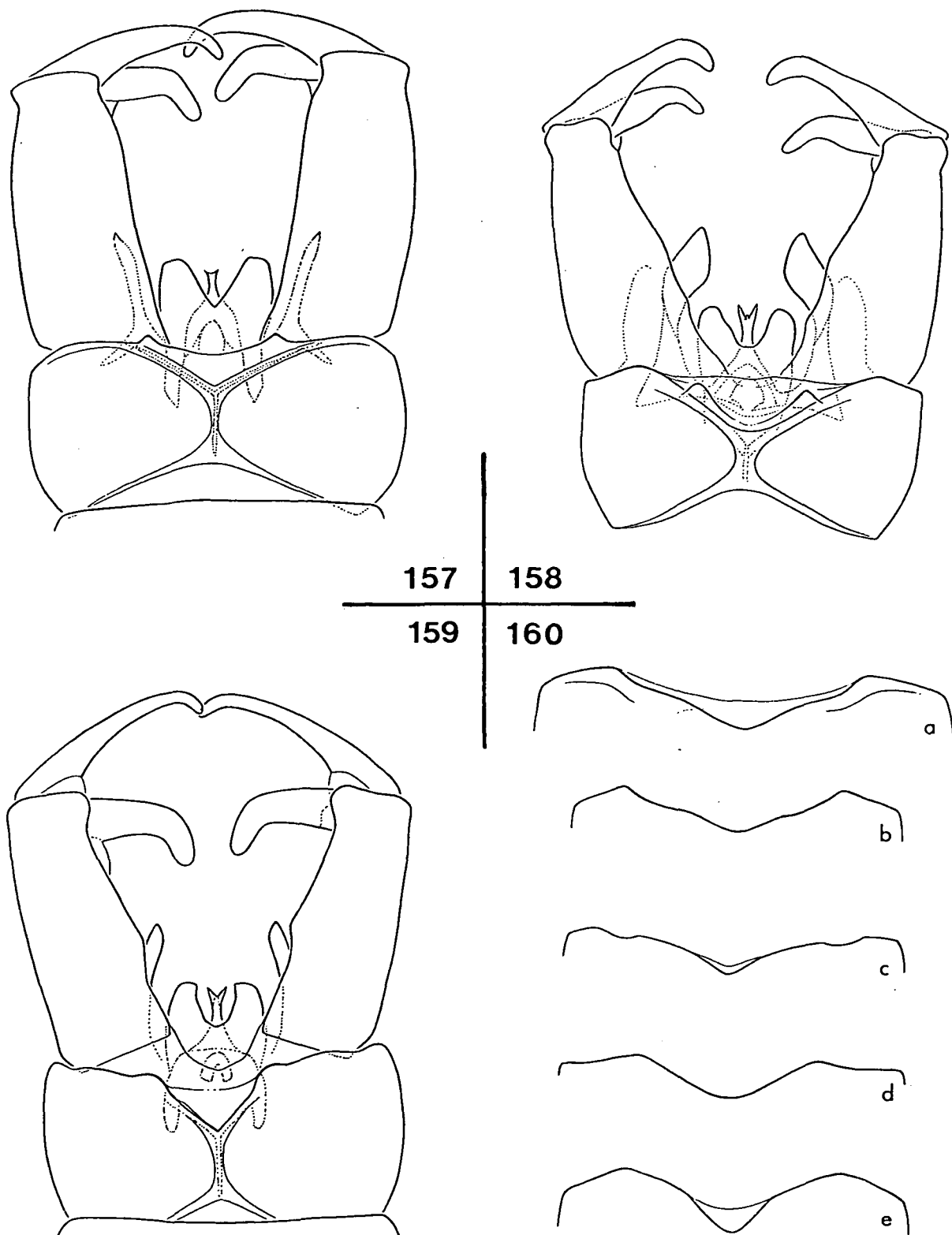
Figs 145-148. *Gynoplistia* (*Gynoplistia*) species: 145, pattern of hindleg, male: a, *G. flavipes* sp. n.; - b, *G. flavofemorata* ALEX.; - c, *G. frazieri* sp. n.; - d, *G. sculpturata* ALEX.; - 146-148, male hypopygium, ventral aspect: 146, *G. melape* sp. n.; - 147, *G. murdiella* sp. n.; - 148, *G. subimmaculata* ALEX.



Figs 149-152. *Gynoplistia* (*Gynoplistia*) species: 149, pattern of abdomen and hindleg: a, *G. melape* sp. n., male; - b, *G. murdiella* sp. n., male; - c, *G. subimmaculata* ALEX., male; - d, *G. rieki* sp. n., female; - 150-152, male hypopygium: 150, *G. illcha* sp. n., ventral aspect; - 151, *G. yonguldye* sp. n., ventral aspect; - 152, *G. quagga* sp. n., dorsal aspect.



Figs 153-156. Male hypopygium of *Gynoplistia* species: 153, *G. (Gynoplistia) yarra* sp. n., dorsal aspect; - 154, *G. (G.) tooronga* sp. n., dorsal aspect; - 155, 156, *G. (Xenolimmophila) fergusonii* (ALEX.), ventral aspect: 155, from Kosciusko, New South Wales (holotype); - 156, from Mt Keira, New South Wales.



Figs 157-160. *Gynoplistia* (*Xenolimnophila*) species: 157-159, male hypopygium, ventral aspect: 157, *G. flindersi* ALEX.; - 158, *G. paketye* sp. n.; - 159, *G. tubrabucca* sp. n.; - 160, posterior margin of tergite 9, male: a, b, *G. fergusoni* (ALEX.): a, from Kosciusko, New South Wales (holotype); - b, from Mt Keira, New South Wales; - c, *G. flindersi* ALEX.; - d, *G. paketye* sp. n.; - e, *G. tubrabucca* sp. n.