

**CHARACTERISTICS AND RELATIONSHIPS OF
PENTHIMIINAE AND SOME NEW GENERA
AND NEW SPECIES FROM NEW GUINEA
AND AUSTRALIA ; ALSO NEW SPECIES
OF DRABESCINAE FROM NEW
GUINEA AND AUSTRALIA
(Homoptera : Cicadellidae)¹**

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Abstract : Eighteen new genera and 42 new species of Cicadellidae belonging to the subfamilies Penthimiinae and Drabescinae are described. Of these 36 species belong to the Penthimiinae and 6 to the Drabescinae ; 3 species are from Australia, 38 from New Guinea and 1 from Amboina. The characteristics and possible relationships of the Penthimiinae are discussed, the genera of Oriental and Australian Penthimiinae reviewed and a key provided to Australian and New Guinea genera. In addition mention is made of some Gyponinae bearing labels of a New Guinea locality.

The Penthimiinae are a diverse and widely distributed group of leafhoppers. In a former work, in which particulars were given of their characteristics and geographical occurrence, I placed them as a tribe of the subfamily Jassinae (Evans 1947). Other tribes included at the same time in this subfamily were the Jassini, Reuterellini (now Reuplemmelini, Evans 1966), Gyponini, Krisnini and Selenocephalini. This association has not been accepted by other workers, although, in the General Catalogue of Homoptera the Penthimiinae are considered as a subfamily of the Gyponidae (Metcalf 1962).

The current position of the several groups of leafhoppers listed above is as follows: the Penthimiini and Selenocephalini are regarded as tribes of the Deltocephalinae (Linnavuori 1960, a, 1969) ; the genus *Drabescus* Stål, which I had placed in the Selenocephalini, is now, together with certain other genera, assigned to a subfamily, the Drabescinae (Ishihara 1953, Linnavuori 1960, a) ; the Gyponinae and Krisninae are recognized as subfamilies (Oman 1949, Ishihara 1961) ; the Jassinae, as well as the Jassini, Trocnadini and Reuplemmelini, comprise an additional tribe, the Platyjassini, representatives of which are confined to Madagascar (Evans 1953, 1966).

The purpose of this paper is to discuss the position of the Penthimiinae within the Cicadellidae ; to review the genera of Penthimiinae represented in the Oriental and Australian regions ; to describe some new genera of Penthimiinae from New Guinea and Australia and new species of Penthimiinae and Drabescinae from both areas.

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Subfamily PENTHIMIINAE

The Penthimiinae are possibly the most difficult of all apparent natural groups of leafhoppers to define briefly. This is because their more distinctive characters are not of universal occurrence within the subfamily as a whole.

The insects are frequently somewhat squat and widest posteriorly, and may be black, dull red, or brown, in color. A few species have yellow, orange, or green, markings. The head, thorax and tegmina may be pitted and bear microsetae.

The face of the head is usually wider than long and the short labium terminates between the fore coxae. The lora lack visible posterior extensions in the direction of the anterior tentorial pits and the maxillary plates are extensive. In forms with rounded heads the supra antennal ledges are strongly developed and transverse. In others, with apically truncate, or spatulate, heads, the crown is usually separated from the face across the axis of these ledges. The ocelli, which are adjacent to the sides of the postfrontal suture, when it is retained, may be ventrally, dorsally, or, exceptionally, marginally situated. The crown may be equal in length to the eyes, or broadly, or narrowly, anteriorly extended. The coronal suture is usually retained and, in a few forms, there is a median longitudinal carina.

The pronotum is usually wide laterally and sometimes carinate and it may be parallel-sided or widest posteriorly. While the scutellum usually terminates at the angle of the clavus it may, exceptionally, extend to its apex. The tegmina usually have a wide appendix and the 2 adjacent cells are often included in the apical overfold. The venation is sometimes partly reticulate and vein R1 may have several accessory branches. A feature of frequent occurrences is the presence, in the clavus, of a cross vein linking the anal veins. The hind femora have 5 macrosetae and the curved hind tibiae an armature of strong spines.

In the ♂ genitalia the pygophore, which lacks processes, is often spinous and may be bilobed. There is an oblique split associated anteriorly with the 9th sternum and posteriorly with the subgenital plates. While the 9th sternum is usually triangular, it may be anteriorly rounded, or, even almost rectangular in shape. The parameres are short and the Y-shaped basal plate is of variable length. The subgenital plates are usually broadest at the base but may be parallel sided.

This diversity of structural features, the retention of several of a presumed primitive nature (eg. strong, transverse antennal ledges; ventral ocelli; laterally wide pronota; a pitted head and thorax) and the occurrence of widely scattered, presumed, relict forms, suggests the Penthimiinae are an ancient group of leafhoppers.

The Deltocephalinae, on the other hand, seemingly lack primitive characteristics and may represent a more recent evolutionary development though not one of penthimiine ancestry. It is true that the Penthimiinae share with the Deltocephalinae the character of a triangular 9th abdominal sternum in the male but, as I have suggested recently, this characteristic may lack special phylogenetic significance (Evans 1971, a).

Although, in recent years, attempts to establish intergroup relationships in cicadellids have been based increasingly on ♂ genitalia characters, so long as generalised, and not specialised, forms are selected for comparative study, those provided by their heads remain of prime importance.

If a generalised penthimiid head, such as the one illustrated in fig. 2 C (*Chinaella cudmorei* Evans) is compared with those of some typical deltocephalids, it will be apparent, not only that the former has a specialised feature lacking in the heads of

all deltocephalids, but also that it retains more primitive characteristics. The specialised feature is the transverse flexing of the head across the axis of the antennal ledges and the primitive ones, a completely enclosed frontoclypeus widely separated from the eyes, strong supra antennal ledges and facially situated ocelli.

While the Deltocephalinae could be derived from leafhoppers with the generalised features mentioned above they could not have evolved from forms with the specialised one and it is this feature, with which is associated the further developments of apically truncate and spatulate heads, that establishes the Penthimiinae as a distinctive group of leafhoppers.

Some ledrids also have spatulate heads and may closely resemble some penthimiids in general appearance. This circumstance, however is associated with parallel evolution and not with close genetic affinity.

While now of the opinion that the Penthimiinae are best regarded as constituting a subfamily of the Cicadellidae this is not to acknowledge I regard my former association of them with the Jassinae as lacking significance. Thus, if a comparison is made of the special characteristics and evolutionary trends of the 2 groups the following resemblances will be apparent: in representatives of both the crown of the head and the pronotum may be steeply declivous. The ocelli may be facial, or situated on a marginal rim, or on a flattened crown. The supra antennal ledges are strongly developed and may be either transverse or arched. The pronotum is usually wide laterally. The tegmina, which sometimes bear microsetae, usually have a considerable apical overlap and may have several short veins associated with R1. In shape, insects may be broad and squat, and in color sometimes red or black.

It is true that the ♂ genitalia of the Jassinae differ from those of the Penthimiinae in having long, narrow, parameres and subgenital plates and a 9th sternum which, when separately differentiated from the pygophore, is never triangular in shape. These characteristics, like the apical fusion of veins Rs and M in the hind wings of Jassinae, may, however, be no more than secondarily developed ones associated with evolutionary divergence from a common ancestor.

The following genera of Oriental and Australian Penthimiinae are currently recognized: *Penthimia* Germar, *Haranga* Distant, *Tambila* Distant, *Malichus* Distant, *Amberbakia* Distant, *Uzelina* Melichar, *Neodartus* Melichar, *Vulturnus* Kirkaldy, *Thaumatoscopus* Kirkaldy, *Ectopiocephalus* Kirkaldy, *Ledroides* Dammerman, *Chinaella* Evans, *Vulturnellus* Evans, *Platyscopus* Evans. In addition, I have suggested that *Magnentius* Pruthi, which formerly I had ascribed to the Macropsinae, should be transferred to the Penthimiinae (Evans, 1971, b)

Thought has been given as to whether the above genera, and those described in this paper, might be allotted to tribal groupings, but, for reasons that follow none are proposed.

There would seem to be 4 distinctive groups of penthimiids in the combined region, three of which each contain a single genus (*Haranga*, *Magnentius*, *Neodartus*), and one, the remaining genera. If the genera in the fourth group comprised species of reasonable similarity, then the recognition of 4 tribes of Oriental and Australian Penthimiinae would be justified. This, however, is not the position and the extremes between genera is very considerable (eg. *Penthimia*, *Thaumatoscopus*, *Platyscopus*, *Amberbakia*).

Two alternatives are possible, either to recognize 4 presumed natural tribes, or else several tribes of varying significance. While the first course could be justified on phylogenetic grounds, it might, for reasons given in the last paragraph, cause confusion. On the other hand the adoption of the second alternative, though possibly helpful to students, would present an unbalanced picture of evolutionary relationships.

Faunal elements

The Australian penthimiid fauna seem to comprise 4 separate elements, as follows: a south Western Australian element consisting solely of *Platyscopus* spp.; an inland arid areas element (*Chinaella* spp.); an eastern Australian relict element (*Ectopiocephalus*), and a recent immigrant eastern Australian element (*Vulturnus*, *Neovulturnus*, *Thaumatoscopus*, *Tolasella*, *Tomaloides*).

While species in the last mentioned genera occur most abundantly in Queensland, unlike certain other cicadellid components of the Pleistocene invasion (eg. *Tharra* spp., Coelidiinae) they are not confined to the northern coastal area. Moreover, considerable speciation would seem to have taken place within Australia and only a single species has been recorded from Australia which occurs also in New Guinea (*Thaumatoscopus galeatus*).

In New Guinea, which has an exclusively Oriental penthimiid fauna, considerable speciation has likewise taken place.

KEY TO GENERA OF AUSTRALIAN AND NEW GUINEA PENTHIMIINAE

- | | | |
|---------|--|---------------------------------|
| 1. | Head apically rounded, or truncate, crown convex | 2 |
| | Crown of head flat, sharply separated from the face | 6 |
| 2 (1). | Pronotum wide laterally..... | 3 |
| | Pronotum narrow laterally | Chinaella Evans |
| 3 (2). | Insects not more than 4 mm in length..... | 4 |
| | Insects 5-8 mm in length | Ectopiocephalus Kirkaldy |
| 4 (3). | Appendix of tegmen forming a continuous curve with costal margin | 5 |
| | Appendix not forming a continuous curve with costal margin..... | Tolasella * |
| 5 (4). | Crown and face of head forming a continuous curved surface; aedeagus with a pair of narrow processes arising from base | Piorella * |
| | Crown not forming a continuous curved surface with the face; aedeagus lacking basal processes | Tomaloides * |
| 6 (1). | Ocelli on crown of head..... | 7 |
| | Ocelli marginal | Neodartus Melichar |
| 7 (6). | Apex of head not spatulate | 8 |
| | Apex of head spatulate, sometimes foliaceous | 13 |
| 8 (7). | Crown of head with a broad apical rim overhanging the face | 9 |
| | Face of head approximately at right angles to declivous crown; no apical rim | 10 |
| 9 (8). | Apex of head narrowly thickened..... | 11 |
| | Apex of head broadly thickened | Vertigella * |
| 10 (8). | Postclypeus flat; crown declivous..... | Macutella * |
| | Postclypeus convex; crown not declivous | Neopenthimia * |
| 11 (9). | Insects widest in center..... | 12 |

* Described as new.

	Parallel sided insects.....	Neovulturnus Evans
12 (11).	Glistening black insects ; aedeagus a recurved hook	Nubelloides*
	Black and brown insects, aedeagus not as above	Sidelloides*
13 (7).	Crown of head approximately twice length of pronotum.....	14
	Crown considerably less than twice length of pronotum	15
14 (13).	Crown curving outwards in front of eyes.....	Amberbakia Distant
	Crown directed inwards in front of eyes	Platyscopus Evans
15 (13).	Crown of head flat	16
	Crown of head convex, apex hood-like	Osella*
16 (15).	Apex of head narrowly rim-like	17
	Apex of head foliaceous	19
17 (16).	Aedeagus without spine-like processes	18
	Aedeagus with 2 pairs of spine-like processes	Nortoides*
18 (17).	Anterior and posterior margins of crown parallel.....	Pentria*
	Anterior and posterior margins of crown not parallel	Penthimiopsis*
19 (17).	Aedeagus lacking lateral processes	20
	Aedeagus with lateral processes	Thaumatoscopus Kirkaldy
20 (19).	Sides of crown curved towards apex	21
	Sides of crown almost parallel	Gressittella*
21 (20).	Crown evenly rounded apically	22
	Crown narrowing apically	Nubelella*
22 (21).	Crown longer than pronotum	23
	Crown shorter than pronotum	Alopenthimia*
23 (22).	Aedeagus with a pair of slender apical processes	Eusallya*
	Aedeagus without such processes	Vulturnus Kirkaldy

Only 2 species of Penthimiinae have been recorded previously from New Guinea (*Vulturnus retifera* (Walker) and *Amberbakia specularis* (Walker)). In the Bishop Museum collection there are no less than 40 species belonging to this subfamily. Of these, one species (*Thaumatoscopus galeatus*) was known previously from Australia ; 33 species are described as new and 6 species are not described. Those described, which are represented by single specimens, are either of particular interest or else very readily recognizable.

Genus *Haranga* Distant

1907, *Faun. Brit. Ind. Rhyn.* 4: 248.

Type-species : *Penthimia orientalis* Walker.

This genus, which is represented in India and Ceylon, has 2 described species, *Haranga orientalis* (fig. 1A, B) and *H. decurtata* Distant. These resemble *Penthimia* spp. in head characteristics ; in the presence of hair bearing punctures on the head, thorax and tegmina ; in the laterally carinate pronotum and in having tegmina with accessory veins associated with R₁, and a wide appendix. They resemble *Magnentius* (fig. 1 C), *Chinaella* (fig. 2 B), and species in many other genera, in the presence of a cross vein in the clavus. They differ from all other genera of the Penthimiinae in the size and shape of the thorax, in which characteristic they resemble species in the hylicid genus *Balala* Distant.

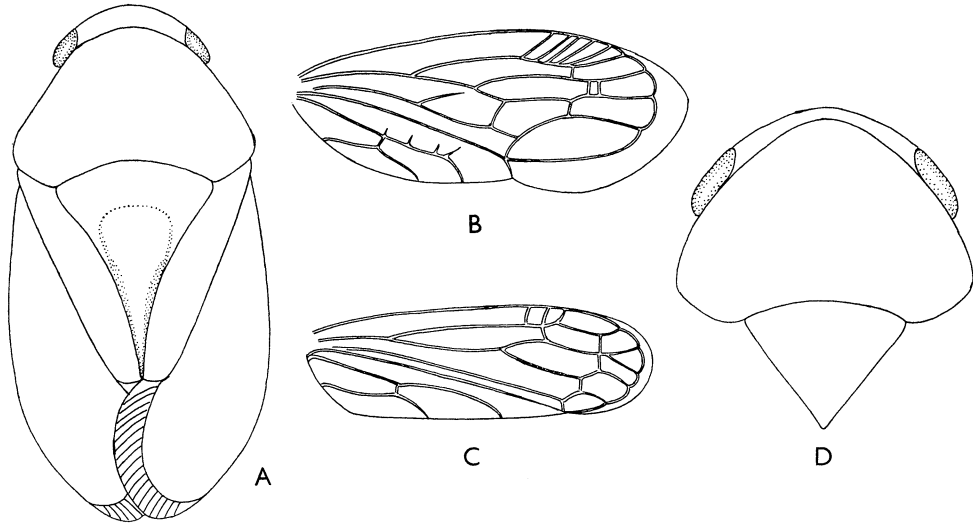


Fig. 1. A, *Haranga orientalis*; B, *H. orientalis*, tegmen; C, *Magnentius clavatus*, tegmen; D. *M. clavatus*, head and thorax.

Genus *Magnentius* Pruthi

1930, *Mem. Ind. Mus.* 11: 6.

Type-species: *Magnentius clavatus* Pruthi.

Two species are comprised in this genus, *Magnentius clavatus* from southern India (fig. 1 C, D) and *M. congoensis* Evans from tropical Africa. They resemble *Penthimia* spp. in head characteristics; in having hair bearing punctures on the head, thorax and tegmina, and laterally wide, carinate, pronota. They resemble many penthimiine genera in the presence of a cross vein in the clavus. They differ from most species in the subfamily in having tectiform tegmina with narrow appendices.

Genus *Penthimia* Germar

1821, *Mag. Ent.* 4: 46.

Type-species: *Cicada nigra* Goeze.

This genus is represented in the Palaearctic region by the type species, by a few species in the Nearctic region and by numerous ones in Asia and Africa. It comprises convex, more or less, oval shaped insects (eg. *P. nittida* Lethiery, fig. 2 A). The head may be anteriorly convex or broadly truncate; the pronotum long and laterally carinate and the tegmina, which may be elytra like, overlap apically.

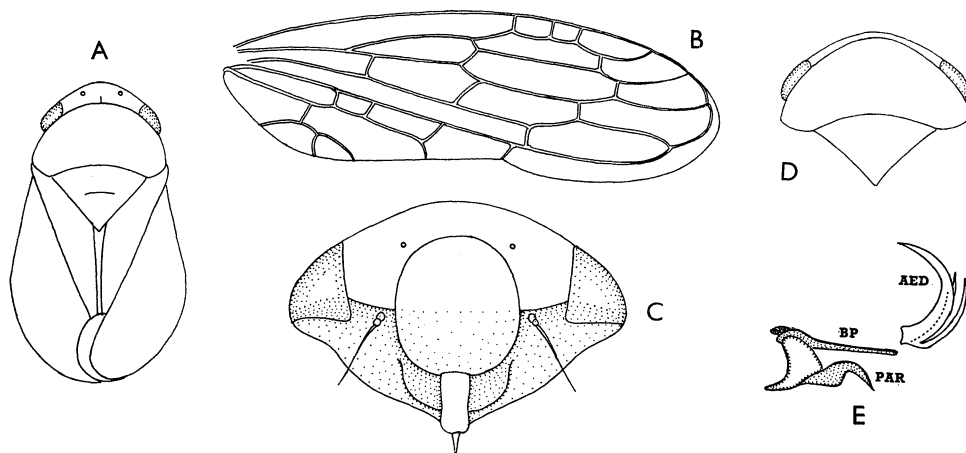


Fig. 2. A, *Penthimia nitida*; B, *Chinaella cudmorei*, tegmen; C, face of head; D, *Chinaella pingellensis*, head and thorax; E, ♂ genitalia. AED, aedeagus; BP, basal plate; PAR, paramere.

Genus *Ectopiocephalus* Kirkaldy

1906, *Bull. Hawaii Sug. Ass. Exp. Sta.* 1: 463.

1966, *Austral. Mus. Mem.* 12: 211.

Type-species: *Scaris australis* Walker.

The single species in this genus, which occurs in eastern Australia, is sexually dimorphic. It is more elongate than species in the genus *Penthimia* and differs also in the proportions of some of its parts.

Genus *Tambila* Distant

1907, *Faun. Brit. Ind. Rhyn.* 4: 247.

Type-species: *Tambila greeni* Distant.

Four of the described species of *Tambila* occur in Ceylon and another in India. The apex of the head of the type species is more truncate than in *Penthimia* and has 3 prominent transverse ridges. The anal veins form a Y-vein.

Genus *Chinaella* Evans

1936, *Pap. Roy. Soc. Tasm.* 1935: 76.

1966, *Austral. Mus. Mem.* 12: 212.

Type-species: *Chinaella argentata* Evans.

Species in this genus form part of the sparse leafhopper fauna of inland Australia. They resemble *Penthimia* in general cephalic (fig. 2 C), tegminal (fig. 2 B) and male genitalia characteristics, but differ in certain generalised and specialised features. Thus,

although as in *Penthimia*, the head is flexed across the axis of the antennal ledges, it conforms in other respects to a more generalised cicadellid pattern. The pronotum is narrow laterally, hence more specialised than in *Penthimia*.

Chinaella pingellensis Evans, new species Fig. 2 D, E.

Length, ♂, 3.8 mm, ♀, 4 mm. Coloration, brown and black. Face of head black, finely mottled with reddish brown; antennal ledges, frontoclypeus medially and posteriorly, margins of maxillary plates and eyes, narrowly reddish brown. Pronotum black mottled with reddish brown. Scutellum black, apically, and a spot on each side, pale brown. Tegmen pale hyaline brown, grey, and white, with irregular brown patches; venation in clavus reticulate; numerous cross veins between CuA and claval suture; veins brown. ♂ genitalia as in fig. 2 E.

Holotype ♂ (Australian Museum K69234), south Western Australia, Pingelly, X.1966, J. W. and F. Evans. Allotype ♀ (Australian Museum K69235), same data as holotype.

Genus **Tolasella** Evans, new genus

On the face of the head the clypeus is flat, excepting postero-laterally. The crown is declivous and the convex apical half is transversely striated and approximately at right angles to the face. Coronal and postfrontal sutures are present and the ocelli are adjacent to the latter midway between the coronal suture and the eyes. The pronotum, which is finely transversely striated, widens slightly posteriorly. The extensive appendix of the tegmen does not form a continuous curve with the costal margin. In the ♂ genitalia the 9th sternum is approximately rectangular and the basal connective is longer than the parameres. The laterally flattened aedeagus has one, or more, dorsally directed lobes.

Type-species: *Tolasella festa* n. sp.

Tolasella differs from *Neodartus* in having dorsal and not marginal ocelli and a convex, declivous, instead of a flattened, crown. The following species, formerly referred to the genus *Neodartus* (Evans, 1966) are transferred to this genus: *brunneus* Evans, *lapsus* Evans, *maculosus* Evans, *pallidus* Evans (comb. nov.)

Tolasella festa Evans, new species Fig. 3 B, G, H.

Length, ♂, ♀, 4 mm. General coloration mottled brown. Face of head black, crown pale or dark brown, sometimes finely mottled with black. Pronotum and scutellum concolorous with crown. Tegmen pale hyaline brown with white markings and a reticulate brown pattern; veins pale brown. ♂ genitalia as in fig. 3 G, H.

Holotype ♂ (BISHOP 9542), NE New Guinea, Goroka-Kabebe, 1800 m, 20.VI.1955, J. L. Gressitt. Allotype ♀, Kassam, 1350 m, 30.X.1959, T. C. Maa.

Tolasella moifensis Evans, new species Fig. 3 C, E.

Length, ♂, 3.8 mm. General coloration brown, black and yellow. Face of head black; frons black with brown markings; vertex brown mottled with black. Pronotum concolorous with vertex. Scutellum bright yellow. Tegmen hyaline dirty white, irregularly mottled with brown; appendix, and 2 adjacent cells, hyaline smoky. ♂ genitalia, aedeagus as in fig. 3 E.

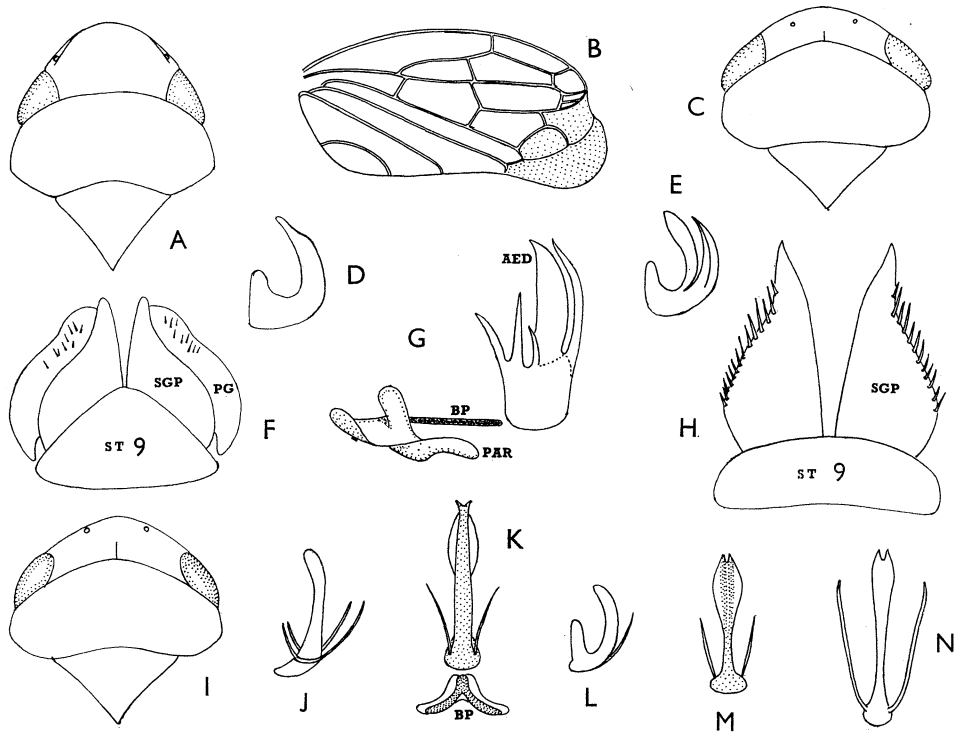


Fig. 3. A, *Neodartus acocephaloides*, head and thorax ; B, *Tolasella festa*, tegmen ; C, *Tolasella moifensis*, head and thorax ; D, *Tomaloides shepherdi*, aedeagus ; E, *T. moifensis*, aedeagus ; F, *T. shepherdi*, ♂ genitalia, G, H, *T. festa*, ♂ genitalia ; I, *Piorella gressitti*, head and thorax ; J, aedeagus ; K, *Piorella sedlaceki*, aedeagus and basal plate ; L, M, *Piorella parva*, aedeagus ; N, *Piorella maai*, aedeagus.

Holotype ♂ (BISHOP 9543), NE New Guinea, Moife, 15 km NW of Okapa, 2100 m, 7.X.1959, T. C. Maa.

Genus *Tomaloides* Evans, new genus

The head, thorax and tegmina bear numerous fine hairs. On the face the postclypeus is flat excepting postero-laterally. The crown is declivous and the convex apical half transversely striated as far as the hind margin of the frons. The coronal suture is lacking. The pronotum is widest posteriorly. The appendix of the tegmen is extensive and forms a continuous curve with the costal margin.

Type-species : *Tomaloides shepherdi* n. sp.

Tomaloides resembles *Tolasella* in head shape but differs in tegminal and male genitalia characters.

Tomaloides shepherdii Evans, new species Fig. 3 D, F.

Length, ♂, 4 mm, ♀ 4.5 mm. General coloration black mottled with brown. Head and pronotum black. Scutellum black with a pair of reddish brown spots. Tegmen proximally black, distally pale brown mottled with brown, with 3 hyaline, or white, ante-apical cells; appendix smoky with brown markings. Ventral surface of thorax and abdomen black, hind margin of each abdominal segment narrowly brown. ♂ genitalia as in fig. 3 F and 3 D.

Holotype ♂ (Australian Museum K69236), New South Wales, Broken Hill, F. W. Shepherd. Allotype ♀ (Australian Museum K69237) same data as holotype.

Genus Piorella Evans, new genus

Sexually dimorphic insects with ♂♂ smaller than ♀♀ and differently colored. On the face of the head, which is considerably wider than long, the postclypeus is flat. The declivous, convex, crown, which forms a continuous curved surface with the face, is longest in the center and the crown, and laterally adjacent vertex, finely transversely striated. The transversely striated pronotum is widest posteriorly. The tegmina are apically truncate and the wide appendix is almost in continuous alignment with the costal margin. In the ♂ genitalia the 9th sternum is triangular, the subgenital plates apically narrow, the basal connective shorter than the parameres and the aedeagus bears a pair of slender processes arising from the base.

Type-species: *Piorella gressitti* n. sp.

Piorella resembles *Tolasella* and *Tomaloides* in having a convex, declivous, crown. It differs in characters furnished by the male genitalia.

Piorella gressitti Evans, new species Fig. 3 I, J.

♂. Length, 4 mm. General coloration, black with pale markings. Head and thorax black. Tegmen shiny; clavus black, remainder proximally black with irregular vitreous areas, distally dark brown with sub-apical vitreous areas; appendix and 2 adjacent cells, brown; veins in relief. ♂ genitalia, aedeagus as in Fig. 3 J.

♀. Length, 4.8 mm. General coloration brown. Face of head brown; ante and postclypeus and lora, in part, black. Crown of head and thorax, brown. Tegmen shiny brown with costal and subapical vitreous areas; veins in relief.

Holotype ♂ (BISHOP 9544), NE New Guinea, Mt Piora, 3200 m, 12.VI.1966, J. L. Gressitt. Allotype ♀, 3 Paratype ♂♂, 4 Paratype ♀♀, same data as holotype. 2 Paratype ♂♂, Lake Aunde, 3400 m, Sedlacek.

Piorella parva Evans, new species Fig. 3 L, M.

♂. Length, 3.8 mm. General coloration, mottled black and brown. Head black except for brown frontal area. Pronotum black with numerous evenly distributed small brown markings. Scutellum yellow, anteromedially black. Tegmen dark brown, evenly and densely mottled with pale hyaline brown; appendix and 2 adjacent cells, smoky brown. ♂ genitalia, aedeagus as in fig. 3 L, M.

♀. Length, 4.3 mm. General coloration brown. Face of head black. Crown pale brown, laterally yellow. Pronotum concolorous with crown. Scutellum apically, and laterally, yellow.

Tegmen shiny brown with white vitreous areas; veins in relief. ♂ genitalia as in fig. 3 L, M.

Holotype ♂ (BISHOP 9545), NE New Guinea, Mt Hagen, 3000 m, 6.VI.1966, J. L. Gressitt. Allotype ♀, NE New Guinea, Mt Piora, 3100 m, 12.VI.1966, J. L. Gressitt.

Piorella sedlaceki Evans, new species Fig. 3 K.

Length, ♂, 3-3.8 mm. General coloration black mottled with brown. Face of head black; crown, frons brown, remainder black finely mottled with brown. Scutellum finely mottled with brown with lateral and apical yellow markings. Tegmen black mottled with brown; 2 antepical cells vitreous; appendix and 2 adjacent cells, smoky. ♂ genitalia, aedeagus as in fig. 3 K.

Holotype ♂ (BISHOP 9546), NE New Guinea, Sirunki, Lake Iviva, 2800 m, 15.VI.1963, J. Sedlacek. Paratypes: 1 ♂, Wau, 1050 m, Sedlacek; 1 ♂ Wanuma, Adelbert Mts, 800 m, Gressitt; 1 ♂, SE New Guinea, N of Mendi, 1800 m, Gressitt.

Piorella maai Evans, new species Fig. 3 N.

Length, ♂, 3 mm, ♀, 3.6 mm. General coloration black and brown mottled with white. Face of head black. Crown, ♂, frons brown, remainder dark brown finely mottled with pale brown; ♀, medially brown, laterally pale yellow. Pronotum either concolorous with crown, or anteriorly and laterally, broadly cream; posteromedially black mottled with brown. Tegmen, clavus very dark brown sometimes with white markings; remainder brown with irregular ivory markings; appendix and 2 adjacent cells, parchment brown. ♂ genitalia, aedeagus as in fig. 3 N.

Holotype ♂ (BISHOP 9547), NE New Guinea, Kassam, 1350 m, 30.V.1959, T. C. Maa. Allotype ♀ and 4 Paratype ♂♂, same data.

Genus **Neodartus** Melichar

1903, Homopt. Faun. Ceylon: 162.

Vulturnullus Evans, 1966, *Austral. Mus. Mem.* 12: 220 (syn. nov.).

Type-species: *Neodartus acocephaloides* Melichar.

This genus, to which several species of penthimiids have previously been referred in error, (Evans 1955, 1966) has been recorded from the Oriental, African and Australian regions. It differs in certain cephalic characteristics from all other genera of the subfamily. Thus, even though the head is flattened and the crown extensive, the supra antennal ledges are facial and the ocelli marginal in position. The head and thorax of the type species are illustrated (fig. 3 A).

Genus **Neovulturnus** Kirkaldy

1937, *Mem. Queensland Mus.* 11: 50.

Type-species: *Vulturnus vanduzeei* Kirkaldy.

The genus *Vulturnus* comprises yellowish, pale, or dark, brown, insects with the apex

of the head narrowly thickened and overhanging the flattened face. On the crown, which is slightly longer on the center than at the sides, the coronal suture is retained and the pronotum widest posteriorly. The tegmina have a reticulate pattern and the appendix is not in continuous alignment with the costal margin. The veins are distinct but not in relief.

There are no representatives of this genus in the Bishop Museum New Guinea collection but the following described species from eastern Australia, previously included in *Vulturnus*, are transferred to it: *vaecors* Kirkaldy, *vultuosus* Kirkaldy; *vaedulcis* Kirkaldy, *vappa* Kirkaldy, *hackeri* Evans, *sordidus* Evans, *montanus* Evans, *spatulatus* Evans, *punctulatus* Evans (comb. nov.)

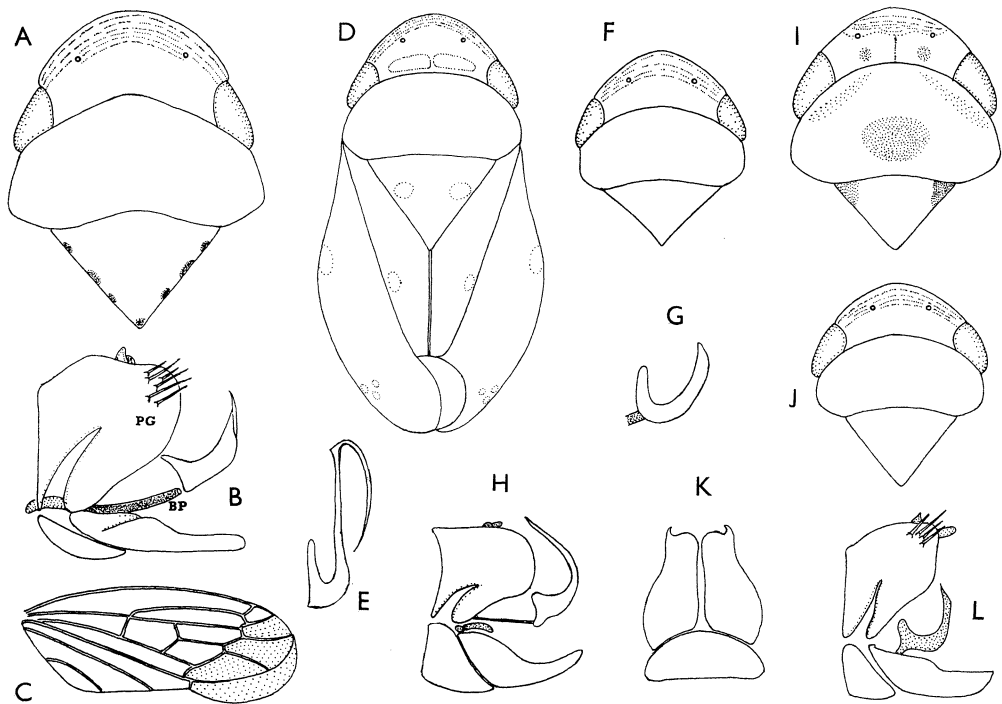


Fig. 4. *Sidelloides histrica*, A, head and thorax; B, ♂ genitalia; C, tegmen; D, *Nubelloides albomaculata*; E, aedeagus; F, *Vertigella rugosa*, head and thorax; G, aedeagus; H, *Eupenthimia nigra*, ♂ genitalia; I, *Macutella lutea*, head and thorax; J, *Vertigella kaindensis*, head and thorax; K, L, ♂ genitalia. BP, basal plate; PG, pygophore.

Genus *Sidelloides* Evans, new genus

The apex of the head is narrowly thickened and overhangs the medially flattened, and otherwise concave, face which is transversely striated posteriorly. The crown is anteriorly transversely striated, the frons not laterally defined and the coronal suture is lacking. The pronotum, which is finely punctate, and long and laterally carinate, is widest posteriorly. The tegmina do not have a steep apical overlap but a wide appendix which forms a continuous curve

with the costal margin. In the ♂ genitalia the basal connective is considerably longer than the parameres.

Type-species: *Sidelloides histrica* n. sp.

Sidelloides resembles *Neovulturnus* in the shape of the apex of the head. It differs in the larger size of the type species and in its overall coloration; also in having a more extensive pronotum.

Sidelloides histrica Evans, new species Fig. 4 A, B, C.

Length, ♂, 6 mm. General coloration black and brown. Face of head black with a large reddish-brown marking on the postclypeus anteriorly. Crown and pronotum black, hind margin of the latter reddish brown. Scutellum black with 3 pairs of lateral and an apical yellowish, or reddish brown, spot. Tegmen pale hyaline brown with an irregular dark brown, or black, pattern; appendix and 3 adjacent cells, hyaline brown. Ventral surface of thorax black; fore legs, and tibiae and tarsi of middle legs, pinkish. Abdomen black, hind margin of each segment narrowly pinkish. ♂ genitalia as in fig. 4 B.

Holotype ♂ (BISHOP 9548), NE New Guinea, Toricelli Mts, Koiniri 26.VIII.1958, W. W. Brandt. Paratypes, 2 ♂♂, NW New Guinea, Nabire, S Geelvink Bay, 0-30m, Gressitt.

Genus *Nubelloides* Evans, new genus

Glistening black insects which are widest in the middle and have the apex of the head narrowly thickened and overhanging the face. The crown, anteriorly, is narrowly transversely striated and longest in the centre and the front and hind margins are not parallel. The tegmina have obscure venation, a steep apical overlap and a wide appendix. In the ♂ genitalia the aedeagus is hook shaped.

Type-species: *Nubelloides albomaculata* n. sp.

Nubelloides resembles *Vertigella* and *Eupenthimia* in overall black coloration. It differs in being glistening, instead of dull, or shiny, black, in being widest in the center, not parallel sided, and in male genitalia characteristics.

Nubelloides albomaculata Evans, new species Fig. 4 D, E.

Length, ♂, 4 mm, ♀, 5 mm. Coloration glistening black with symmetrical white markings. Face of head black, apical margin brown. Crown, ♂, black; ♀, black with, or without, a pair of broad transverse white markings. Pronotum and scutellum black, the latter sometimes with a pair of white lateral markings. Tegmen black with several white markings which are larger in the ♀ than in the ♂. ♂ genitalia, basal connective shorter than parameres; aedeagus as in fig. 4 E.

Holotype ♂ (Bishop 9549), NW New Guinea, Waris, 400-500 m, 17.VIII.1959, T. C. Maa. Allotype ♀, SE New Guinea, Popondetta, 60 m, 21.X.1966, J. Sedlacek. Paratypes, 2 ♂♂, 2 ♀♀, same data as allotype; 1 ♂, NW New Guinea, Swart Valley, 1400-2000 m Gressitt.

Genus **Vertigella** Evans, new genus

Black parallel-sided insects with the apex of the head broadly thickened and overhanging the flattened face. The crown, which is longest in the center and lacks a coronal suture, is narrowly transversely striated anteriorly and finely punctate posteriorly. The parallel sided pronotum is finely transversely striated. The venation of the tegmina is distinct; the anal veins are linked by a cross vein and the appendix does not form a continuous curve with the costal margin.

Type-species: *Vertigella kaindensis* n. sp.

Vertigella resembles *Nubelloides* in coloration but differs in the shape of the apex of the head and in male genitalia characters. It resembles *Tomaloides* to the extent that the type species of both genera have a similarly shaped aedeagus but differs from this genus in head and other characteristics.

Vertigella kaindensis Evans, new species Fig. 4 J, K, L.

Length, ♂, 3.8 mm, ♀, 5 mm. Coloration black. Face of head black, broad apical rim, pale brown. Crown and thorax brown, the latter transversely striated. Tegmen black, rugose; appendix, 2 adjacent cells and costal area ante-apically, pale or dark brown. Male genitalia as in fig. 4 K, L.

Holotype ♂ (BISHOP 9550), SW New Guinea, Mt Kaindi, 2350 m, 7.VI.1966, J. L. and M. Gressitt. Allotype ♀, NE New Guinea, Mt Wilhelm, Lake Aunde, 3600 m, 2.VI.1955, J. L. Gressitt. Paratypes, 2 ♂♂, same data as allotype; 1 ♂, Dimifa, 2200 m, Gressitt; 1 ♀, Goroka, 1650 m, Gressitt.

Vertigella rugosa Evans, new species Fig. 4 F, G.

Length, ♂, 3.4 mm. Coloration black. Face of head black, apical rim brown. Thorax, black. Tegmen black, rugose; appendix and apical cells, brown. ♂ genitalia, aedeagus as in fig. 4 G.

Holotype ♂ (BISHOP 9551), NE New Guinea, Kassam, 1350 m, 30.X.1959, T. C. Maa. 1 Paratype ♂, Moife, 2100 m, Maa.

Genus **Eupenthimia** Evans, new genus

Shiny, but not glistening, black insects with a declivous crown approximately at right angles to the flattened face. The crown, of which the anterior and posterior margins are parallel, is anteriorly narrowly transversely striated and posteriorly finely punctate. The coronal suture is lacking. The pronotum is finely transversely striated and the narrow sides are parallel. The venation of the tegmina is obscure, the appendix forms a continuous curve with the costal margin and the anal veins are linked by a cross vein.

Type-species: *Eupenthimia nigra* n. sp.

Eupenthimia resembles *Vertigella* in coloration and differs in the shape of the apex of the head.

Eupenthimia nigra Evans, new species Fig. 4 H.

Length, ♂, 3.2 mm, ♀, 3.8 mm. Coloration black. Face of head black, broadly brown medio-posteriorly. Crown and thorax black. Tegmen black, appendix and 2 adjacent cells, brown; sometimes a white, or vitreous, anteapical area present. ♂ genitalia as in fig. 4 H.

Holotype ♂ (BISHOP 9552), NW New Guinea, Star Mts, Sibil Valley, 1245 m, 15.X.1961, L. W. Quate. Allotype ♀, NE New Guinea, Mt Wilhelm, 3000 m, 4.VII.1955, J. L. Gressitt. 4 Paratype ♀♀, Simbai, Bismarck range, 1700 m, Gressitt; Laiagam, Sedlacek; Dimifa, Gressitt; Vogelkop, Gressitt. 1 Paratype ♀, Wana, Upper Jimi River, Gressitt.

Genus Macutella Evans, new genus

On the face of the head the postclypeus is flat and the declivous crown, which does not overhang the face, is convex. The frons and the adjacent sides of the vertex is transversely striated and postfrontal and coronal sutures well defined. The transversely striated pronotum is widest posteriorly. The tegmina have 4 oblique veins linking R1 with the costal margin and 2 cross veins between the anal veins. The appendix is broad but the apical overlap of the tegmina is not steep.

Type-species: *Macutella lutea* n. sp.

Macutella resembles *Neopenthimia* in the shape of the apex of the head. It differs in characters furnished by the venation of the tegmina.

Macutella lutea, Evans, new species Fig. 4 I.

Length, ♀, 4 mm. Coloration, orange with black markings. Face of head, maxillary plates black; anteclypeus and lora, dark brown; postclypeus pale brown. Frons pale brown, medially and adjacent vertex, pale yellow; remainder of crown orange with black markings. Thorax orange with black markings. Tegmen orange; veins red.

Holotype ♀ (BISHOP 9553), NW New Guinea, Waris, S of Sukarnapura, 450 m, 1.VIII.1959, T. C. Maa.

Genus Uzelina Melichar

1903, Hompt. Fauna. Ceylon: 181.

Type-species: *Uzelina laticeps* Melichar.

This genus contains a single species from Ceylon the head and thorax of which are illustrated in Fig. 5 A (after Distant, 1908). It would seem to be related to *Vulturinus*, differing in having the flat crown extending only slightly beyond the margins of the eyes. In the tegmen, the anal veins are linked by a cross vein.

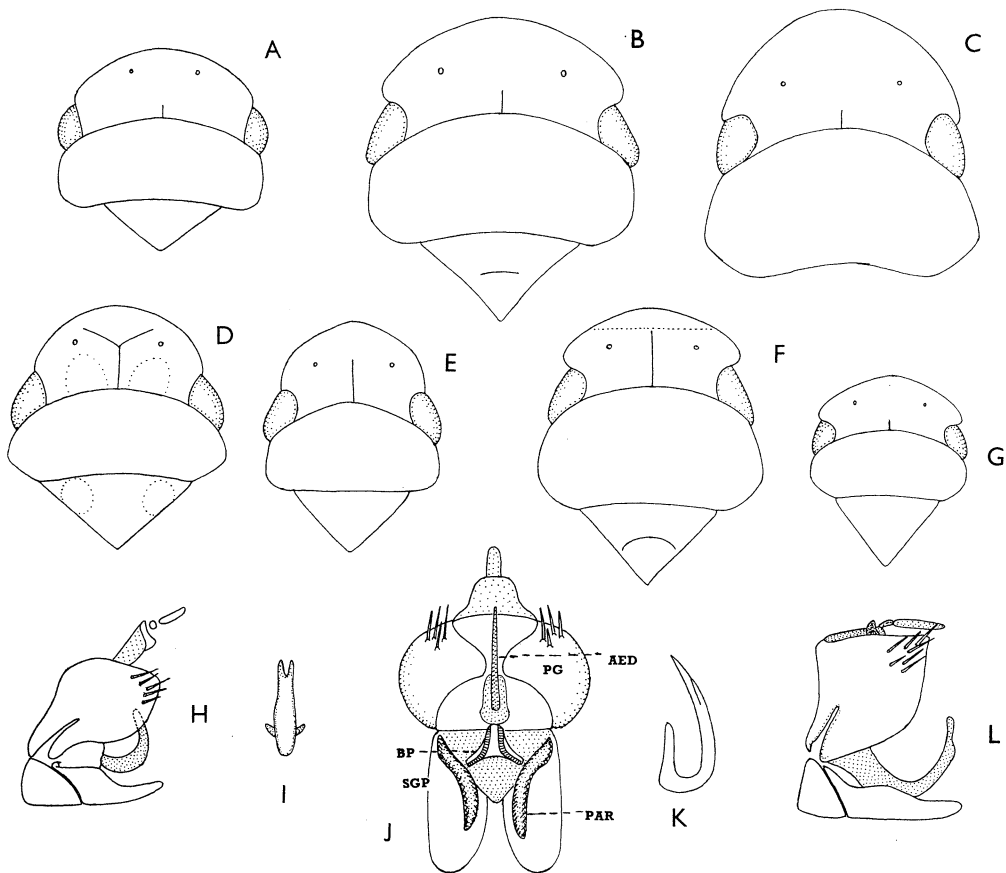


Fig. 5. Head and thorax, A, *Uzelina laticeps*; B, *Alopenthimia magna*; C, *Ledroides reticulata*; D, *Vulturnus testudinea*; E, *V. quatei*; F, *V. cyclopiensis*; G, *Penthimiella amboinensis*; H, *V. testudinea*, ♂ genitalia; I, aedeagus; J, *V. quatei*, ♂ genitalia; K, aedeagus; L, *Alopenthimia magna*, ♂ genitalia. AED, aedeagus; BP, basal plate; PG, pygophore; PAR, paramere; SGP, subgenital plate.

Genus *Vulturnus* Kirkaldy

1906, *Bull. Hawaii Sug. Ass. Exp. Sta.* 1: 463.

Type-species: *Vulturnus vulturnus* Kirkaldy.

The genus *Vulturnus* comprises species in which the apex of the head is foliaceous, the face concave and the anterior and posterior margins of the crown, which is longer than the pronotum, not parallel with each other. The tegmina frequently have a reiculate pattern and the aedeagus is simple.

During the year following his definition of this genus and the description of the type species, Kirkaldy assigned 7 new species to it, all from eastern Australia, as follows: *voltumna*, *virgidemia*, *vanduzeei*, *vaecors*, *vultuosus*, *vaedulcis*, *vappa* (Kirkaldy 1907). At

the same time he separated the genus into 2 Divisions, and to the first, characterised by having "the margin of the head between vertex and frons acute, foliaceous", he assigned *V. vulturnus*, *V. voltumna* and *V. virgidemia*. The remaining 5 species, characterised by having "the margin of the head blunt, subfoliaceous" were placed in the second Division.

In 1937 I proposed the generic name *Neovulturnus* to comprise Kirkaldy's second Division species and also 4 new species from eastern Australia (*brunneus*, *pallidus*, *maculosus*, *lapsus*) (Evans 1937). Subsequently, I stated that *Vulturnus* was a synonym of *Neodartus* (Evans 1953) and later published a correction that it was *Neovulturnus*, not *Vulturnus*, that was the synonym (Evans 1955).

Recent examination of types and specimens of type species necessitates further changes in nomenclature. Thus, *Neovulturnus vanduzeei*, selected as the type species of the genus, is not congeneric with *Neodartus acocephaloides* (fig. 3 A) the type species of the latter genus. Furthermore, my placing of *brunneus*, *pallidus*, *maculosus* and *lapsus* in *Neovulturnus* was an error caused by misinterpretation of Kirkaldy's definition of his second Division of *Vulturnus*.

A single species of *Vulturnus*, *V. retifera* (Walker 1870) (syn. nov.) has formerly been recorded from New Guinea and a species, *V. dido* Linnavuori, 1960, a, from Fiji. *Thaumatoscopus dunkensis* Evans, is herewith transferred to *Vulturnus* (syn. nov.)

***Vulturnus testudinea* Evans, new species** Fig. 5 E, J, K.

Length, ♂, 4.6 mm. General coloration green and brown. Face of head black, narrowly brown posteriorly. Crown, curving outwards adjacent to eyes, together with pronotum, greenish, or pale yellow, with an irregular scribble pattern. Scutellum similarly patterned but paler. Tegmen whitish, or pale hyaline brown, with an irregular scribble pattern; veins brown. Ventral surface of thorax and abdomen black. ♂ genitalia as in fig. 5 J and K.

Holotype ♂ (BISHOP 9554), NW New Guinea, Vogelkop, Kebar Valley, W of Manokwari, 550 m, 4.I.1962, L. W. Quate. 1 Paratype ♂, same data.

***Vulturnus cyclopensis* Evans, new species** Fig. 5 F.

Length, ♀, 5.2 mm. General coloration, mottled brown with bold yellow markings. Face of head anteriorly black; postclypeus brown shading to pale brown posteriorly. Crown curving outwards in front of eyes; frons pale brown, remainder of crown pale and dark brown; post-frontal and coronal sutures T-shaped. Pronotum, except for a transverse posterior yellow band, concolorous with the crown. Scutellum yellow with small median and lateral brown markings. Tegmen mottled pale and dark brown; clavus posteriorly and costal area anteriorly and sub-apically, yellow; appendix and adjacent cells similarly coloured to rest of tegmen; anal veins linked by a cross vein.

Holotype ♀ (BISHOP 9555), NW New Guinea, Ifar, Cyclops Mts, 700 m, 26.VI.1962, Palm, J. L. Gressitt.

The above species, is only tentatively ascribed to the genus *Vulturnus*.

Vulturnus pellucidus Evans, new species Fig. 6 A, B.

Length, ♂, 6 mm, of crown of head, 1 mm. Coloration brown with pale and dark markings. Face of head black, hind margin narrowly brown. Crown brown, anteriorly and posteriorly broadly pale yellow. Pronotum brown. Scutellum, anteriorly and lateral angles, black, remainder orange brown. Tegmen vitreous, clavus posteriorly margined with brown; veins very pale brown. ♂ genitalia, aedeagus as in fig. 6 B.

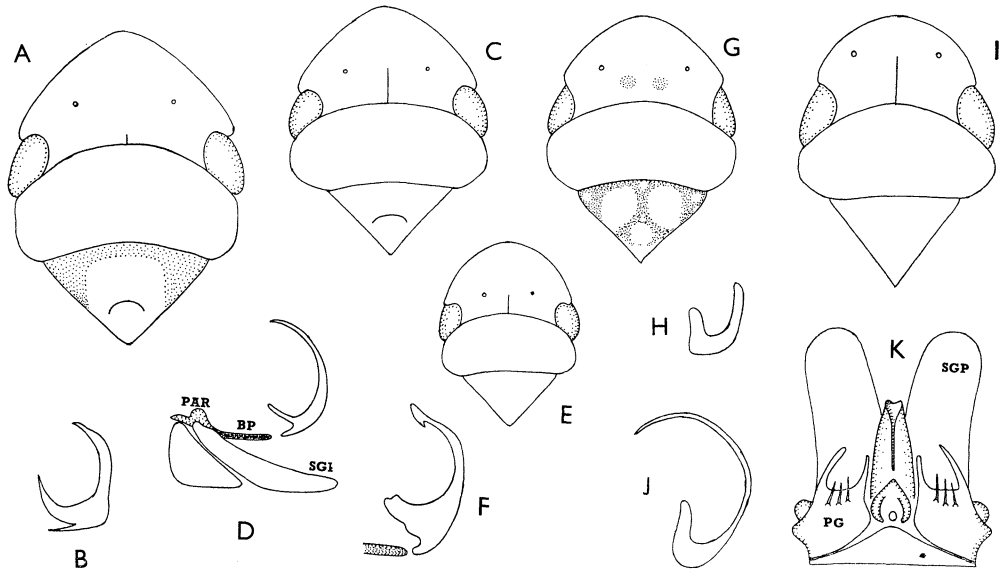


Fig. 6. A, *Vulturnus pellucidus*, head and thorax; B, aedeagus; C, *Penthimiopsis parva*, head and thorax; D, ♂ genitalia; E, *Penthimiopsis woodlarkensis*, head and thorax; F, aedeagus; G, *Vulturnus coloratus*, head and thorax; H, aedeagus; I, *V. maprikensis*, head and thorax; J, aedeagus; K, ♂ genitalia. BP, basal plate; PAR, paramere; SGP, subgenital plate.

Holotype ♂ (BISHOP 9556), Bodem, 100 m, 11 km SE of Oeberfaren, 7.VII.1959, T. C. Maa. 1 Paratype ♂, same data.

In general appearance this species resembles *Thaumatoscopus galeatus* and is ascribed to *Vulturnus* because of male genitalia characters.

Vulturnus maprikensis Evans, new species Fig. 6 I, J, K.

Length, ♂, ♀, 4 mm. General coloration mottled brown. Face of head black, hind margin narrowly brown. Crown pale yellowish mottled with brown and dark brown. Pronotum and scutellum concolorous with crown. Tegmen hyaline grey and brown sparsely and irregularly, mottled with brown; veins dark brown. Thorax and abdomen, ventral surface black. ♂ genitalia as in fig. 6 J, K.

Holotype ♂ (BISHOP 9557), NE New Guinea, Maprik, 100 m, 29.XII.1960, T. C. Maa. Allotype ♀, same data as holotype. 1 Paratype ♂, Papua, Brown River, Forá.

Vulturinus coloratus Evans, new species Fig. 6 G, H.

Length, ♂, 5 mm. General coloration pale yellowish brown and pink. Face of head very dark brown, narrowly reddish brown posteriorly. Crown slightly angulate adjacent to eyes, pale brownish yellow, with a pair of circular pink markings. Pronotum yellowish, narrowly pink anteriorly. Scutellum black with a pair of anterior lateral yellow markings and a medial pair of large yellow markings blotched with red; apex yellow. Tegmen pale yellowish brown, costal margin and base of clavus, pink; venation of clavus slightly reticulate; veins brown. ♂ genitalia, aedeagus as in fig. 6 H.

Holotype ♂ (BISHOP 9558), Amboina, F. Muir.

Genus **Thaumatoscopus** Kirkaldy

1906, Bull. Hawaii Sug. Ass. Exp. Sta. 1 : 462.

Type-species: *Thaumatoscopus galeatus* Kirkaldy.

T. galeatus (fig. 8 A, B) resembles *Vulturinus vulturinus* in having a foliaceous head. It differs in size, being considerably larger, in having a more concave face and in aedeagus shape. This species was originally described from north Queensland but since it is well represented in the Bishop Museum collection is probably a component of the New Guinea, rather than of the Australian fauna. New Guinea localities include: NE: Baniyik, Maprik; NW: Waris, Guega; SE: Middle Fly River. Other species of *Thaumatoscopus* have been recorded from the Philippines (Merino 1936).

Genus **Ledroides** Dammerman

1910, *Notes Mus. Leiden* 33 : 59.

Type-species: *Ledroides reticulata* Dammerman.

The type-species, from Sumatra, is the only one ascribed to this genus. The crown of the head is extensive and spatulate and partly enfolds the eyes (fig. 5 C).

Genus **Malichus** Distant

1918, *Faun. Brit. Ind. Rhyn.* 7 : 24.

Type-species: *Malichus capitatus* Distant.

This is another, at present, monotypic genus. The crown of the head is similar in shape to that of *Eusallya bomberensis* (fig. 8 H).

Genus **Penthimiella** Evans, new genus¹

The face of the head, which is 2 × as wide as long, is concave. The foliaceous crown, which has the anterior and posterior margins parallel, is of equal length with the pronotum, and the coronal suture is retained. The pronotum is finely punctate and the scutellum transversely striated. The tectiform tegmina are coriaceous and have fine hairs arising from raised

1. Omitted from Key (p. 172) on account of geographical occurrence.

spots. The appendix is narrower than the 2 adjacent cells and the venation is obscure.

Type-species: *Penthimiella amboinensis* n. sp.

Penthimiella differs from other described genera of the Penthimiinae with spatulate head in characters furnished by the tegmen.

Penthimiella amboinensis Evans, new species Fig. 5 G.

Length, ♀, 6 mm. General coloration dark chocolate brown. Face of head black, brown posteriorly. Pronotum black, laterally and posteriorly, brown. Tegmen dark chocolate brown, distal 2/3 of costal margin pale hyaline brown; apex and 2 anteapical markings, brown. Ventral surface of thorax and abdomen, pale brown.

Holotype ♀ (BISHOP 9559), Amboina, F. Muir.

Genus *Alopenthimia* Evans, new species

The face of the foliaceous head is convex and narrowly rim-like apically. The crown, which has the anterior and posterior margins parallel is slightly longer than the pronotum and the coronal suture is retained. The pronotum is obscurely, and the scutellum coarsely, transversely striated. The tectiform tegmina are truncate apically and the appendix is narrower than the 2 adjacent cells combined. The veins, which are distinct, bear fine hairs and the anal veins are linked by a cross vein.

Type-species: *Alopenthimia magna* n. sp.

Alopenthimia resembles *Vulturinus* in having the apex of the spatulate head narrowly rim-like. It differs in its less extensive crown, tegmina which do not overlap steeply and in the size of the aedeagus.

Alopenthimia magna Evans, new species Fig. 5 B, L.

Length, ♂, 6 mm, ♀, 7 mm. General coloration brown. Face of head black and brown. Crown and thorax, brown. Tegmen brown, slightly darker than thorax with a vitreous area adjacent to the costal margin posteriorly. ♂ genitalia as in fig. 5 L.

Holotype ♂ (BISHOP 9560), SE New Guinea, 25 km radius of Port Moresby, VI.1928, Pemberton. Allotype ♀, NE New Guinea, Maprik, 150 m. 29.XII.1960, T. C. Maa. 1 Paratype ♂, New Britain, Gazelle Pen, Baining, Gressitt.

Genus *Penthimiopsis* new genus

The head which is spatulate has a narrow apical rim and the face is concave. The crown is longer than the pronotum and the anterior and posterior margins are not parallel. The pronotum is parallel sided. The tectiform tegmina are vitreous and have prominent veins. The anal veins are linked by a cross vein and m-cu2 is oblique.

Type-species: *Penthimiopsis parva* n. sp.

Penthimiopsis resembles *Thaumatoscopus* in head shape. It differs in tegminal and male genitalia characteristics.

Penthimiopsis parva Evans, new species Fig. 6 C, D.

Length, ♂, 4.9 mm. General coloration brown. Face of head dark brown, narrowly pale brown posteriorly. Crown mottled with dark brown. Pronotum dark brown to black transversely mottled with brown. Scutellum yellow, anteriorly black. Tegmen vitreous, with a brown marking in the costal area proximally of R1a; appendix and apical cells smoky; veins dark brown. ♂ genitalia as in fig. 6 D.

Holotype ♂ (BISHOP 9561), Bismarck Arch., Manus, Rossum, 6 km SE of Lorengau, 180, 23.XII.1959, T. C. Maa.

Penthimiopsis woodlarkensis Evans, new species Fig. 6 E, F.

Length, ♂, 6.5 mm. General coloration mottled brown. Face of head, black, posteriorly dark brown. Crown, laterally, in alignment with the eyes, pale brown densely mottled with brown. Pronotum and scutellum concolorous with the crown. Tegmen, pale yellowish hyaline; veins dark brown. ♂ genitalia, aedeagus as in fig. 6 F.

Holotype ♂ (BISHOP 9562), SE New Guinea, Woodlark Island, (Murua), Kulumadau, 1080 m, 12.IV.1963, W. W. Brandt.

Penthimiopsis brunomaculata Evans, new species Fig. 7 A, B, C.

Length, ♂, ♀, 8.8 mm. General coloration, brown, Face of head black, anteriorly narrowly, and posteriorly broadly, yellowish brown. Crown, ♂, finely mottled brown; ♀, pale brown. Pronotum brown finely mottled with dark brown and black. Scutellum concolorous with crown. Tegmen pale yellowish hyaline with sparse, irregular, brown markings; veins brown. ♂ genitalia as in fig. 7 B.

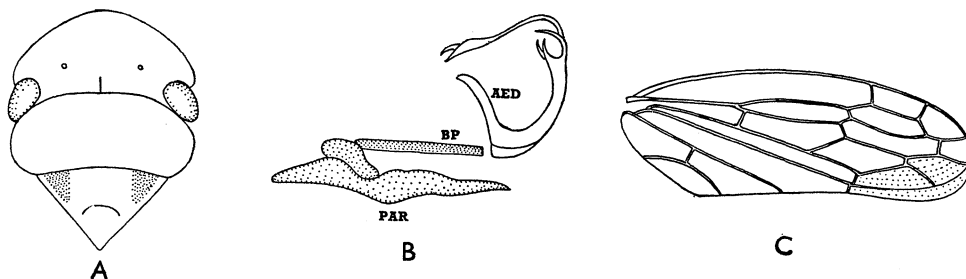


Fig. 7. *Penthimiopsis brunomaculata*, A, head and thorax; B, ♂ genitalia; C, tegmen. AED, aedeagus; BP, basal plate; PAR, paramere.

Holotype ♂ (BISHOP 9563), SE New Guinea, Dimifa, S. Highlands, 2200 m, 12.X.1958, J. L. Gressitt. Allotype ♀, NE New Guinea, Karimui, 1080 m, 12.VII.1963, J. Sedlacek.

Genus Eusallya Evans, new genus

The head is apically spatulate but not foliaceous and the face is concave. The anterior and posterior margins of the crown are not parallel and the coronal suture is well defined. The

pronotum is shorter than the crown and the sides are parallel. The aedeagus bears a pair of slender apical processes.

Type-species: *Eusallya viridis* n. sp.

Eusallya differs from other described genera of Penthimiinae with spatulate heads in the nature of the armature of the aedeagus.

***Eusallya viridis* Evans, new species** Fig. 8 E, F, G.

Length, ♂, 4 mm, ♀, 5 mm. General coloration green and brown. Face of head, ♂, black, narrowly pale brown posteriorly; ♀, pale brown. Crown, pale green with a median longitudinal yellow stripe, sometimes also with a pair of yellow stripes extending from the hind margin to the ocelli. Pronotum green, sometimes with one, or a pair, of longitudinal yellow stripes. Scutellum green or yellowish. Tegmen pale, or dark, hyaline brown with a variable pale, or dark brown, pattern; sometimes also a whitish longitudinal marking on clavus. Thorax and abdomen, ventral surface, ♂, dark brown and black; ♀, pale brown. ♂ genitalia as in fig. 8 F, G.

Holotype ♂ (BISHOP 9564), SW New Guinea, Vogelkop, Bomberi, 700-900 m, 8.VI.1959, J. L. Gressitt. Allotype ♀, SW New Guinea, Waris, S of Sukarnapura, 450-500 m, 1.VIII.1959, T. C. Maa. Paratype ♂♂, 1, same data as allotype; 1, Daradae Plantation, 80 km N of Port Moresby, Maa; 1, Ifar, Maa.

***Eusallya configurata* Evans, new species** Fig. 8 C, D, O, P.

Length, ♂, 4.2-5 mm, ♀, 4.6 mm. General coloration, mottled brown. Face of head black, or black with yellowish, or reddish, brown markings, narrowly brown posteriorly. Pronotum and scutellum concolorous with crown. Tegmen with a reticulate, or scribble, pattern, concolorous with crown and thorax; 2, or 3, antepical cells sometimes whitish; veins brown. Thorax and abdomen, ventral surface pale brown. ♂ genitalia as in fig. 8 D, O, P.

Holotype ♂ (BISHOP 9565), NE New Guinea, Daulo Pass, 2800 m (Asaro-Chimbu div) 14.VI.1955, J. L. Gressitt. Allotype ♀, SW New Guinea, Hollandia (Sukarnapura)-Binnen, 100 m, 2.XI.1958, J. L. Gressitt. Paratype ♂♂, 1, Waris, Maa; 1, Vogelkop, Maa; 1, Wissel Lakes, Gressitt. Paratype ♀♀, 1 Busu River, Gressitt; 1, Waris, Maa. 1, Japen I, Holtman.

***Eusallya bomberensis* Evans, new species** Fig. 8 H, I.

Length, ♂, 4.8 mm, ♀, 5 mm. General coloration, ♂, pale or dark brown, with a partial, or overall, tortoiseshell pattern; ♀, pale brown. Face of head dark brown or black, hind margin, pale brown. Crown, angulate in front of eyes, pale or mottled brown. Pronotum, ♂, brown, or mottled brown; ♀, pale brown. Scutellum pale or mottled yellow. Tegmen, ♂, pale brown, or brown, with a dark brown scribble pattern; ♀, pale brown with faint scribble markings. ♂ genitalia as in fig. 8 I.

Holotype ♂ (BISHOP 9566), SW New Guinea, Vogelkop, Bomberi, 700-900 m, 5.XI.1959, J. L. Gressitt. Allotype ♀, NW New Guinea, Cyclops Mts, Ifar, 300 m, J. L. Gressitt. 3 Paratype ♂♂, Sepik District, Dreikikir, Gressitt. 2 Paratype ♀♀, Ifar, Maa.

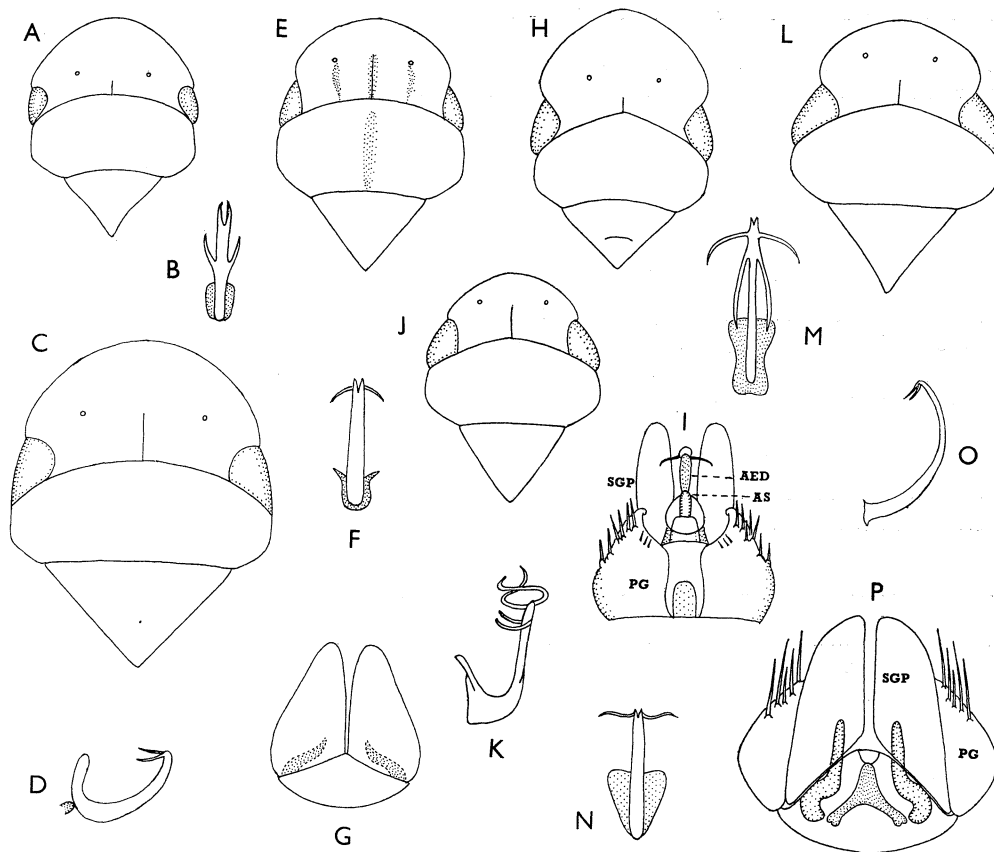


Fig. 8. A, *Thaumatoscopus galeatus*, head and thorax; B, aedeagus; C, *Eusallya configurata*, head and thorax; D, aedeagus; E, *Eusallya viridis*, head and thorax; F, aedeagus; G, ♂ genitalia; H, *Eusallya bomberensis*, head and thorax; I, ♂ genitalia; J, *Nortoides curvata*, head and thorax; K, aedeagus; L, *Nortoides bilobata*, head and thorax; M, aedeagus; N, *Osella anomala*, aedeagus; O, *Eusallya configurata*, aedeagus; P, ♂ genitalia.

Genus *Osella* Evans, new genus

The face of the head is evenly convex except for the posterior quarter which consists of an overhanging concave hood at right angles to the rest of the face. The declivous crown is shorter than the pronotum and the latter, which is widest posteriorly, is transversely corrugated. The costal margin of the tegmen is corrugated and the appendix is wider than the 2 adjacent cells.

Type-species: *Osella anomala* n. sp.

Osella resembles *Eusallya* in the shape of the aedeagus but differs considerably in cephalic features.

Osella anomala Evans, new species Fig. 8 N.

Length, ♂, 4 mm. Overall coloration, brown. Face of head brown, evenly mottled with darker brown. Pronotum and scutellum dark shiny brown. ♂ genitalia, aedeagus as in fig. 8 N.

Holotype ♂ (BISHOP 9567), NE New Guinea, Torricelli Mts, 750 m, 16.III.1959, W. W. Brandt.

Genus Nortoides Evans, new genus

The face of the head is medially flattened and the apex narrowly rim-like. The steeply declivous crown may be equal in length with the pronotum or slightly longer. The pronotum is slightly widest posteriorly. The tegmina have a steep apical overlap and a striated costal margin. The aedeagus has a pair of apical and subapical processes.

Type-species: *Nortoides bilobata* n. sp.

Nortoides resembles *Vulturinus* in the shape of the apex of the head. It differs in characters furnished by the aedeagus.

Nortoides bilobata Evans, new species Fig. 8 L, M.

Length, ♂, 6 mm. General coloration, mottled brown. Face of head black, posterior marginal rim, pale brown. Crown, pronotum and scutellum, pale brown evenly mottled with reddish brown; appendix and 2 adjacent cells, hyaline brown; veins brown. ♂ genitalia, aedeagus as in fig. 8 M.

Holotype ♀ (BISHOP 9568), NE New Guinea, Kassam, 1350 m, 48 km E of Kainantu, 30.X.1959, T. C. Maa.

Nortoides curvata Evans, new species Fig. 8 J, K.

Length, ♂, 4 mm. General coloration mottled nigger brown. Face of head black, posterior marginal rim, yellowish brown. Crown dark brown to black with evenly distributed small yellow spots. Pronotum and scutellum concolorous with crown, the spots smaller. Tegmen, clavus concolorous with adjacent scutellum, remainder brown irregularly blotched with yellow; venation obscure. ♂ genitalia, aedeagus as in fig. 8 K.

Holotype ♂ (BISHOP 9569), NE New Guinea, Karimui, S of Goroka, 1000 m, 7.V.1961, J. L. and M. Gressitt.

Genus Pentria Evans, new genus

The face of the head is medially flattened and posteriorly concave and the rim-like apex is slightly upturned. The crown, which is outwardly curved in front of the eyes, is longer than the pronotum, the anterior and posterior margins are parallel and the postfrontal and coronal sutures form a Y. The pronotum is widest posteriorly. The tegmina have a reticulate pattern and the veins are not prominent. In the ♂ genitalia the basal connective is short, and the long, narrow, aedeagus has a spine-like recurved extension.

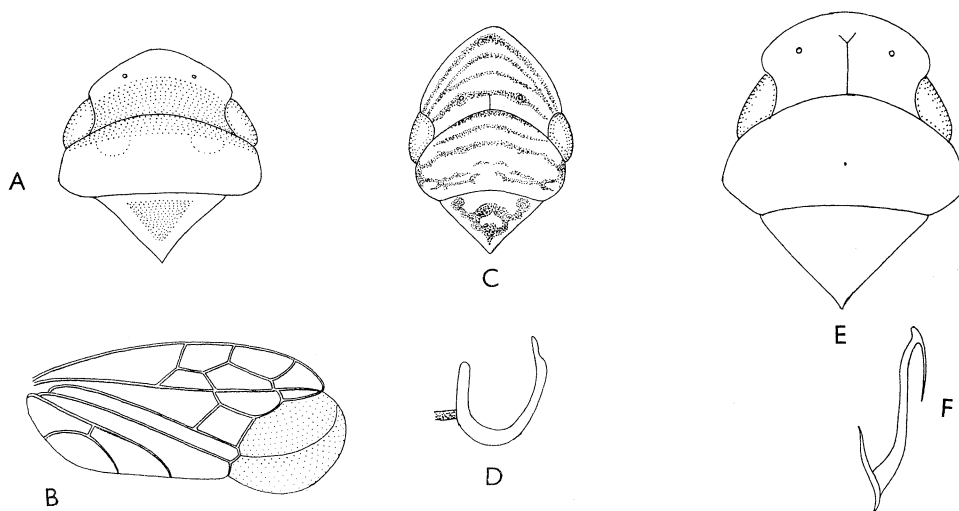


Fig. 9. *Neopenthimia pulchra*, A, head and thorax; B, tegmen. *Nubelella leopardina*, C, head and thorax; D, aedeagus. *Pentria albobrunnea*, E, head and thorax; F, aedeagus.

Type-species: *Pentria albobrunnea* n. sp.

Pentria resembles *Vulturinus* in the shape of the apex of the head. It differs in the shape of the crown and in male genitalia characteristics.

***Pentria albobrunnea* Evans, new species** Fig. 9 E, F.

Length, ♂, ♀, 4.5-5 mm. General coloration pale and dark mottled brown. Face of head, ♂, dark brown, apical rim, pale brown; ♀, entirely pale brown. Crown pale brownish yellow sparsely blotched with pale and dark brown. Scutellum pale brown or yellow; muscle impressions brown. Tegmen pale whitish, or hyaline, brown with an irregular pale, or dark, brown scribble pattern; 2 cells adjacent to appendix concolorous with rest of tegmen. ♂ genitalia, aedeagus as in fig. 9 E.

Holotype ♂ (BISHOP 9570), NE New Guinea, Kassam, 1350 m, 30.V.1959, T. C. Maa. Allotype ♀, SE New Guinea, Brown R, 20.VII.1959, T. C. Maa. Paratype ♀♀, 3, same data as holotype; 2, same data as allotype.

Genus *Neopenthimia* Evans, new genus

The face of the head, which is medially flattened, is twice as wide as long and the thickened apex is hood-like and transversely striated. The crown, which is longest in the center, is transversely striated anteriorly, and the pronotum and scutellum are likewise striated. The tegmina, which overlap steeply, lack CuA1 and the margin is indented where the appendix meets the costal margin. The anal veins are linked by a cross vein.

Type-species: *Neopenthimia pulchra* n. sp.

Neopenthimia differs from other described genera of Penthimiinae in the cephalic and

tegmina characteristics described above,

Neopenthimia pulchra Evans, new species Fig. 9 A, B.

Length, ♀, 4 mm. Coloration, yellow, brown and black. Face of head black, postclypeus sometimes brown; apex pale brown. Crown pale brown or black, narrowly pale brown anteriorly. Anterior third of pronotum pale brown or black, remainder bright yellow. Scutellum pale, or reddish, brown mottled with black. Tegmen pale hyaline brown, sometimes with yellow and black markings in the clavus and a brown marking slightly distal of the center of the costal margin.

Holotype ♀ (BISHOP 9571), New Britain, Vunabakan, 10 km E of Keravat, 180 m, 16. II.1959, T. C. Maa. 2 Paratype ♀♀, NE New Guinea, Moife, 2100 m, Maa.

Genus **Nubelella** Evans, new genus

The face of the head is convex and medially flattened and almost as wide as long and the apex is narrowly rim-like. The crown, which is considerably longer than the pronotum, narrows apically and has a pitted surface. The pronotum is slightly widest posteriorly. The tegmina only overlap slightly, the appendix is narrow and the venation, in part, coarsely reticulate.

Type-species: *Nubelella leopardina* n. sp.

Nubelella differs from other genera of the Penthimiinae in the shape of the crown of the head.

Nubelella leopardina Evans, new species Fig. 9 C, D.

Length, ♂, ♀, 4.5 mm. Coloration yellow and black. Face of head black; ♂, broadly, ♀, narrowly, brown posteriorly. Crown yellow, with 5 anteriorly curved transverse black stripes. Pronotum yellow, with 3 transverse black stripes, or yellow, transversely striped with brown. Scutellum concolorous with pronotum, or yellow mottled with reddish brown. Tegmen pale hyaline brown, sometimes, in part, pale yellowish green; veins, if well defined, brown linked by a pattern of irregular brown markings. ♂ genitalia, aedeagus as in fig. 9 D.

Holotype ♂ (BISHOP 9572), NE New Guinea, Mt Kaindi, 2350 m, 29.III.1968, P. Colman. Allotype ♀, SE New Guinea, Brown R, 20.VIII.1959, T. C. Maa. 1 Paratype ♀, Laloki, nr Port Moresby, Maa.

Genus **Gressittella** Evans, new genus

The face of the head is concave and the almost parallel sided crown, which is longer than the pronotum, is convex and hoodlike and slightly thickened apically. The pronotum, which is of equal length with the scutellum, is widest posteriorly. The tegmina are apically declivous and the appendix is narrower than the 2 adjacent cells. In the ♂ genitalia the basal connective is very short.

Type-species: *Gressittella bella* n. sp.

Gressittella differs from other described genera of Penthimiinae in the shape of the crown of the head.

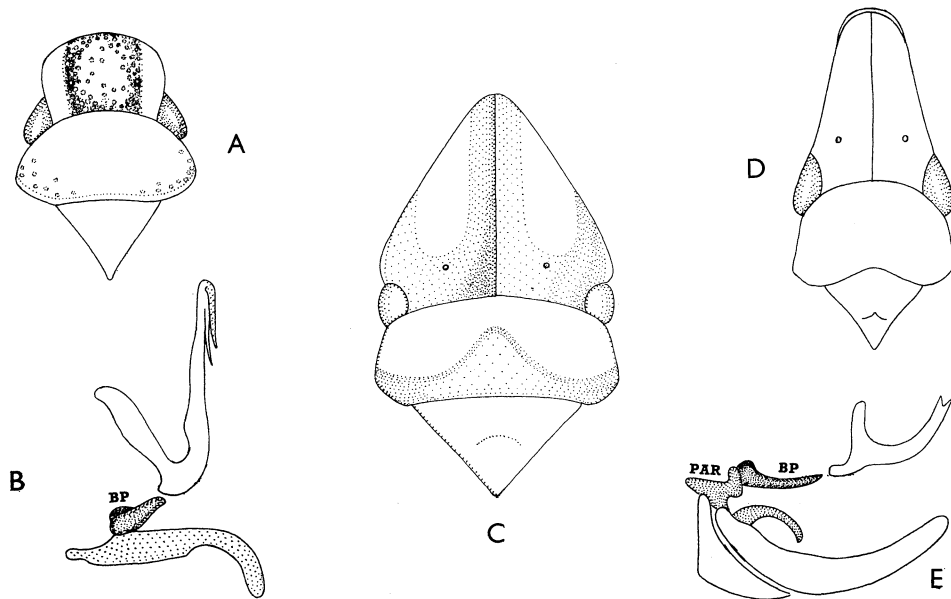


Fig. 10. *Gressittella bella*, A, head and thorax; B, ♂ male genitalia; C, *Amberbakia specularis*, head and thorax; D, *Platyscopus moorei*, head and thorax; E, ♂ genitalia. BP basal plate; PAR, paramere.

***Gressittella bella* Evans, new species** Fig. 10 A, B.

Length, ♂, 7 mm, ♀, 7.2 mm. General coloration brown. Face of head black with a pale area of varying extent on the maxillary plates. ♂. Crown shiny brown, faintly and evenly, mottled with pale brown. Pronotum and scutellum concolorous with the crown. Tegmen hyaline mottled brown with numerous vitreous areas. ♂ genitalia as in fig. 10A.

♀. Crown pale or dark brown finely and evenly mottled with pale brown; laterally, broadly pale green, yellow, or whitish. Pronotum concolorous with central area of crown, with a transverse green band posteriorly. Tegmen as in ♂.

Holotype ♂ (BISHOP 9573), SW New Guinea, Vogelkop, Bomberi, 700–900 m, 4.VI.1959, J. L. Gressitt. Allotype ♀, NW New Guinea, Waris, 450 m, 7.VIII.1959, T. C. Maa. 2 Paratype ♀♀, 1, same data as allotype; 1, New Britain, Vnabakan, Maa.

Genus *Amberbakia* Distant

1912, *Ann. Mag. Nat. Hist.* (8) 10: 443.

Type-species: *Petalcephala specularis* Walker.

The type species of this monotypic genus (fig. 10 C) is represented in the Bishop Museum collection by a single female specimen (NW New Guinea, Japen I, jungle, light trap, Holtmann).

Genus *Platyscopus* Evans

1943, *Trans. Roy. Soc. W. Aust.* 27: 145.

Type-species: *Platyscopus badius* Evans.

This genus is apparently represented solely in Western Australia. It differs from eastern Australian penthimiids in the extreme elongation of the head.

***Platyscopus moorei* Evans, new species** Fig. 10 D, E.

Length, ♂, 6 mm. Face of head concave, black. Crown with a median longitudinal ridge, longer than the pronotum and scutellum combined, narrowing progressively towards the apex, pale yellowish brown with black markings. Pronotum laterally wide, broadest posteriorly, pale yellowish brown with irregular brown markings anterolaterally. Scutellum black. Tegmen hyaline brown and white, apically, and appendix, black; veins dark brown and black. ♂ genitalia as in fig. 10 E.

Holotype ♂ (Australian Museum K69238), Western Australia, Coolgardie, X.1966, K. Moore.

Subfamily DRABESCINAE

The genus *Drabescus* Stål is abundantly represented in the Oriental region and has been recorded elsewhere from Africa (1 species), Samoa (1) and north-eastern Australia (1). Its distinctiveness was first recognized by Ishihara who placed it as the sole component of a family, the Drabescidae (Ishihara 1953). Subsequently, Linnavuori added the genera *Jamitettix* Matsumara, *Bhatia* Distant, *Hybrasil* Kirkaldy and *Lamia* Linnavuori and gave the group subfamily status (Linnavuori 1960, a).

At the time I assigned *Drabescus* to the Selenocephalini (Evans 1947) I failed to appreciate that the character of ocelli situated on a marginal head rim might have been developed several times within the Cicadellidae. While accepting the need for this genus to be comprised in a separate subfamily from *Selenocephalus* Germar. I am of the opinion it may not be closely related to the 4 genera with which it is now associated.

Eight species of *Drabescus* are contained in the Bishop Museum collection. Of these 2 species are represented only by female specimens and are not described; 1 species has been described previously from Australia and five are described below as new. A single new species is also described from Australia.

Genus *Drabescus* Stål

1870, *Öfvers. Vetens-Akad, Förh. Stockh.* 27: 738.

Type-species: *Bythoscopus remotus* Walker.

This genus comprises robust leafhoppers with flat faces which have a short labium, wide maxillary plates, strong supraantennal ledges adjacent to the hind margin of the face and long antennae. The ocelli, which are not closely adjacent to the eyes, are situated on a marginal rim which separates the face from the crown of the head. The crown, which, in part, is of frontal origin, is flat, and may be equal in length with the eyes, or longest in the center. The

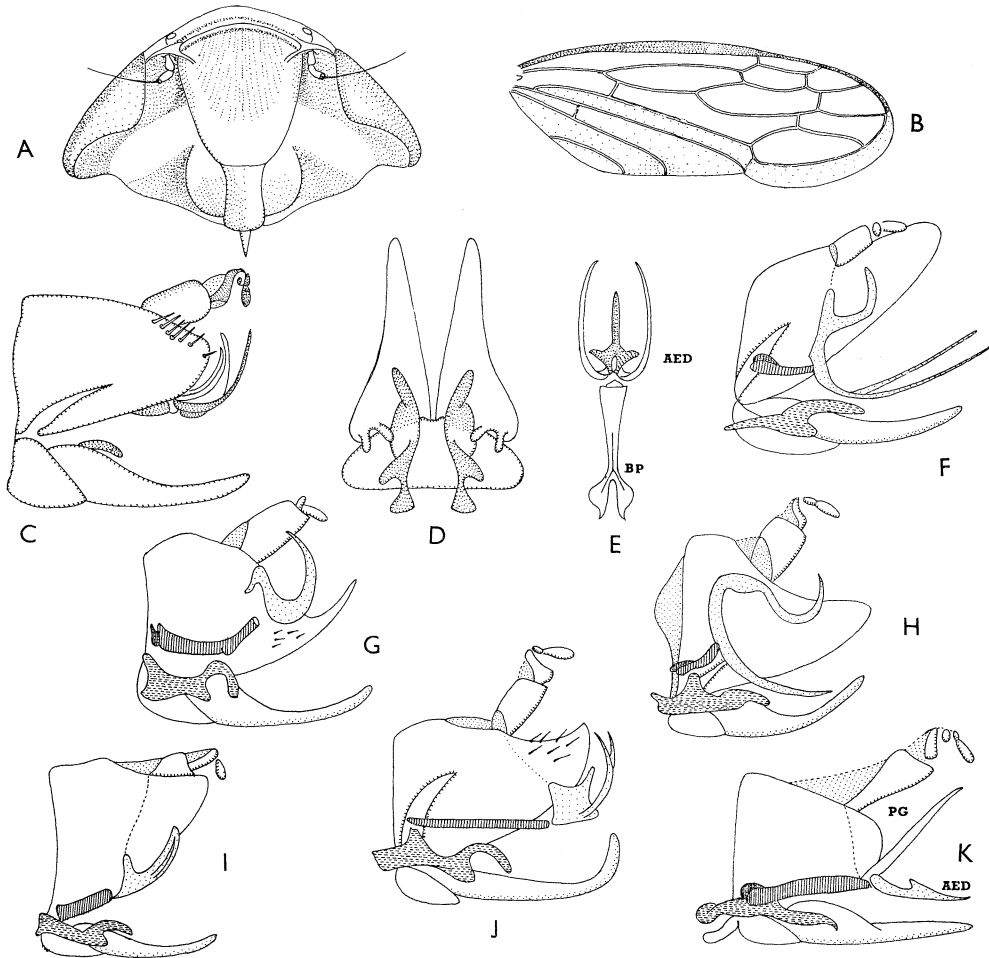


Fig. 11. A, *Drabescus heroni*, face of head ; B, *D. brunneus*, tegmen ♂ genitalia : C, D, E, *D. gressitti*; F, *D. heroni* ; G, *D. kaindii* ; H, *D. feraminensis* ; I, *D. palmerstoni* ; J, *D. brunneus* ; K, *D. sirunkensis*. AED, aedeagus ; BP, basal plate ; PG, pygophore.

tegmina, which sometimes bear raised spots on the veins, have a wide appendix and lack cross vein m-cu2. In the ♂ genitalia the pygophore has an oblique split, the basal connective is of varying length and the subgenital plates narrow distally.

***Drabescus heroni* Evans** Fig. 11 A, F.

1966, *Austral. Mus. Mem.* 12: 221.

This species, of which the ♂ is 8 mm, and the ♀, 9 mm long, was originally described from Queensland. It has a broad transverse yellow stripe on the face which continues onto the adjacent thoracic sclerites and the veins of the tegmina have raised spots. The ♂ genitalia are illustrated in fig. 11 F.

It is the most abundantly represented species of *Drabescus* in the Bishop Museum collection. Some of the localities where it has been taken are as follows: NE New Guinea, Eliptamin Valley, 1200-1350 m, Brandt; Feramin, 120-150 m, Brandt; Wau Morobe Dist, Sedlacek; Kassam, 1350 m, Maa. SE New Guinea, Woodlark Is, Brandt; New Britain, Gazelle Pen, Sedlacek: Solomon Is. Bougainville, Gressitt.

***Drabescus gressitti* Evans, new species** Fig. 11 C, D, E.

Length, ♂, 7 mm, ♀, 8 mm. General coloration dark brown or black. Face of head dark brown, frontoclypeus somewhat paler laterally; marginal rim ivory. Crown of head and thorax dark brown or black. Tegmen pale hyaline brown; veins dark brown without raised spots but with one, or a few, white markings. Ventral surface of prothorax and mesothorax partly brown, or black, partly cream. ♂ genitalia as in fig. 11 C, D, E.

Holotype ♂ (BISHOP 9574), SE New Guinea, Kokopa-Pitoki, 450 m, 24.III.1956, J. L. Gressitt. Allotype ♀, NE New Guinea, Lae, Singwawa R. 15.IV.1966, Wilkes. Paratypes, 3 ♀♀, NW New Guinea, Nabire, Maa and Sedlacek.

***Drabescus feraminensis* Evans, new species** Fig. 11 H.

Length, ♂, 7 mm, ♀, 8 mm. General coloration, brown. Face of head, anteclypeus and frontoclypeus dark brown, remainder pale yellowish brown; marginal rim pale brown, bordered on each side with pale brown, or completely brown. Scutellum anteriorly brown, posteriorly marginally yellowish. Tegmen pale hyaline shiny brown sometimes with a median transverse whitish fascia; veins dark brown. ♂ genitalia as in fig. 11 H.

Holotype ♂ (BISHOP 9575), NE New Guinea, Feramin, 120 m, 7.VI.1959, W. W. Brandt. Allotype ♀, SE New Guinea, Mt Giluwe, 2550 m, 27.V.1963, J. Sedlacek. Paratypes, 1 ♂, Eliptamin Valley, Brandt; 1 ♀, W. Highlands, Kubor Range, Gressitt.

***Drabescus sirunkensis* Evans, new species** Fig. 11 K.

Length, ♂, ♀, 7 mm. General coloration, brown. Face of head evenly pale brown or green; marginal rim pale brown bordered with black. Pronotum, ♂, brown; ♀, brown, evenly spotted with yellowish brown. Scutellum, brown, lateral angles sometimes darker in color. Tegmen pale hyaline brown, sometimes with a narrow white, or vitreous, transverse fascia; veins dark brown. ♂ genitalia, pygophore with a long narrow process (fig. 11 K).

Holotype ♂ (BISHOP 9576), NE New Guinea, Feramin, 120 m, 7.VI.1959, W. W. Brandt. Allotype ♀, NE New Guinea, Sirunki, Lake Iviva, 2550 m, 17.VI.1963, J. Sedlacek. Paratypes, 1 ♂, same data as allotype; 1 ♀, NW NG, Swart Valley, Karabaka, Gressitt.

***Drabescus brunneus* Evans, new species** Fig. 11 J.

Length, ♂, 8 mm, ♀ 9.3 mm. General coloration, dark shining brown. Head brown, marginal rim in ♀, cream. Crown and thorax brown. Tegmen hyaline brown; ♂ with a transverse white fascia and a few white spots on veins in area of fascia. Ventral surface of prothorax and mesothorax partly brown, partly cream. ♂ genitalia as in fig. 11 J.

Holotype ♂ (BISHOP 9577), NW New Guinea, Wamena, 1700 m, 10.II.1960, T. C. Maa.

Allotype ♀, NW New Guinea, Sentami, 90 m, 16.VI.1959, T. C. Maa. Paratypes, 2 ♀♀, Gollala, Owen Stanley Range, Brandt; Loloipa, Brandt. 1 ♂, Normanby I, Wakaiuna, Sewa Bay, Brandt; 1 ♀, NE New Guinea, Swart, Karabuka, Gressitt.

Drabescus kaindii Evans, new species Fig. 11 G.

Length, ♂, 7 mm. General coloration, brown. Face of head pale brown, hind margin brown bordered laterally with black. Pronotum ochreous brown with pale brown spots. Scutellum, anteriorly dark, posteriorly pale, brown. Tegmen pale hyaline yellowish brown mottled with large brown spots; veins dark brown. ♂ genitalia as in fig. 11 G.

Holotype ♂ (BISHOP 9578), SW New Guinea, Kaindi, 2350 m, 7.IV.1966, J. L. Gressitt.

Drabescus palmerstoni Evans, new species Fig. 11 I.

Length, ♂, 7 mm. General coloration dark brown with yellow markings. Face of head brown with a narrow transverse yellow stripe extending from the sides of the frontoclypeus to the external margins of the head and thence onto the prothorax and mesothorax. Pronotum dark brown spotted with pale brown with a marginal yellow stripe continuing onto the scutellum. Scutellum anteriorly concolorous with pronotum, posteriorly paler. Tegmen dark hyaline brown sometimes with paler areas; veins brown with paler raised spots. ♂ genitalia as in fig. 11 I.

Holotype ♂ (Queensland Museum T 7000), S. Queensland, Henrietta Creek, Palmerston National Park, 12.XII.1966, B. Cantrell. Paratype 1 ♂, Green Range, Cape York Peninsular, Kerr.

Drabescus palmerstoni resembles *D. heroni* in coloration. It differs in its smaller size and in characters furnished by the ♂ genitalia.

Subfamily GYPONINAE

The Gyponinae are restricted in distribution to the Neotropical and Nearctic regions. For this reason it is probable that 4 specimens of gyponids belonging to the genus *Polana* contained in the Bishop Museum New Guinea collection are mislabelled. As, however, eggs might have been introduced in nursery stock and the insects established, even temporarily, in New Guinea, they merit recording. All bear the labels "Lae, New Guinea, Aug. 1944, F. E. Skinner, Purdue Univ. Coll."

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List of new genera, new species, new combinations and a new synonymy

New Genera: *Tolasella*, *Tomaloides*, *Piorella*, *Sidelloides*, *Nubelloides*, *Vertigella*, *Eupenthimia*, *Macutella*, *Penthimiella*, *Alopenthimia*, *Penthimiopsis*, *Eusallya*, *Osella*, *Nortoides*, *Pentria*,

Neopenthimia, *Nubelella*, *Gressittella*.

New Species: *Chinaella pingellensis*; *Tolasella festa*, *T. moifensis*; *Tomaloides shepherdii*; *Piorella gressitti*, *P. parva*, *P. sedlaceki*, *P. maai*; *Sidelloides histrica*; *Nubelloides albomaculata*; *Vertigella kaindensis*, *V. rugosa*; *Eupenthimia nigra*; *Macutella lutea*; *Vulturnus testudinea*, *V. quatei*, *V. cycloensis*, *V. pellucidus*, *V. maprikensis*, *V. coloratus*, *Penthimiella amboinensis*, *Alopenthimia magna*, *Penthimiopsis parva*, *P. woodlarkensis*, *P. brunomaculata*; *Eusallya viridis*, *E. configurata*, *E. bomberensis*; *Osella anomala*; *Nortoides bilobata*, *N. curvata*; *Pentria albobrunea*; *Neopenthimia pulchra*; *Nubelloides leopardina*; *Gressittella bella*; *Platyscopus moorei*; *Drabescus gressitti*, *D. feraminensis*, *D. sirunkensis*, *D. brunneus*, *D. kaindii*, *D. palmerstoni*.

New Combinations: *Tolasella brunneus*, *T. maculosus*, *T. pallidus* (from *Neodartus*); *Neovulturnus vaecors*, *N. vultuosus*, *N. vaedulcis*, *N. vappa*, *N. hackeri*, *N. sordidus*, *N. montanus*, *N. spatulatus*, *N. punctulatus* (from *Vulturnus*); *Vulturnus retifera* (from *Penthimia*); *Vulturnus dunkensis* (from *Thaumatoscopus*).

New Synonymy: *Neodartus* (*Vulturnellus*)

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