Vol. 15, no. 2 20 July 1973

Organ of the program "Zoogeography and Evolution of Pacific Insects." Published by Entomology Department, Bishop Museum, Honolulu, Hawaii, U.S.A. Editorial committee: J. L. Gressitt (editor), S. Asahina, R. G. Fennah, R. A. Harrison, T. C. Maa, F. J. Radovsky, C. W. Sabrosky, J. J. H. Szent-Ivany, J. van der Vecht, K. Yasumatsu and E. C. Zimmerman, Devoted to studies of insects and other terrestrial arthropods from the Pacific area, including eastern Asia. Australia and Antarctica.

# SOME NEW GENERA AND SPECIES OF CICADELLOIDEA FROM AUSTRALIA AND NEW GUINEA (Homoptera)<sup>1</sup>

By J. W. Evans<sup>2</sup>

Abstract: The Eurymelidae of New Guinea are listed with new distribution records. Ipoides eramboensis (SW New Guinea), I. maculata (SW New Guinea) and Ipoella wallacei (W. Australia) are n. spp. The following new taxa in the Cicadellidae are described: Alospanbergia n. genus, type-sp., A. bella n. sp. (NE New Guinea), and Micrelloides n. genus, type-sp., M. molaris n. sp. (W. Australia) of the Hecalinae. In the Nirvaninae, newly recorded for New Guinea, the following taxa are added: Tortor daulias Kirk., Stenometopius bunyensis Evans, Nirvanoides amboinensis Baker and 9 n. spp. viz-Mukaria variabilis (NE New Guinea and New Britain), Pseudonirvana hieroglyphica and P. pulchra (Bismarck Arch.), P. ocellata (W. New Guinea), P. pallida (New Britain), P. magnifica (New Ireland), Ophiuchus lineatus (SW New Guinea), O. distanti and Stenotortor madangensis (NE New Guinea). In the Penthimiinae Vertigella bicolor (NE New Guinea) and Vulturnus quatei (NW New Guinea) are n. spp. The Xestocephalinae are newly recorded for New Guinea and Aloxestocephalus n. genus, type-sp. A. nigrobrunneus n. sp. (NE New Guinea) is added. The figures for Vulturnus testudinea Evans, 1972 are correctly assigned.

## Family EURYMELIDAE

The Eurymelidae are endemic to Australia, and in New Guinea occur particularly, though not exclusively, in the Port Moresby district, where like eucalypts they represent a recent element of southern derivation. Some degree of speciation has nevertheless taken place in New Guinea although, so far, no endemic genera have been recognized.

The following species are known only from New Guinea: Ipoides brunomaculata Evans, I. melaleucae Evans, Katipo pallescens (Ev.), Eurymeloides nigra Evans, E. kalimensis Evans, E. sogerensis Evans (Evans, 1966). Two of the above, I. brunomaculata and E. nigra from Port Moresby, are represented in the Bishop collection. In addition, 4 other described species, three of which are widespread in Australia, and one known previously only from north Queensland, are contained in the collection; (Bakeriana nigra Evans, Aroa Estate, W of Redscar Bay (Gressitt); Ipoides hackeri Evans, Eramboe

<sup>1.</sup> Part of the specimens examined are results of fieldwork supported by grants to Bishop Museum from the U. S. National Science Foundation (G-2127 G-4774, G-10734) and to Dr J. L. Gressitt from the J. S. Guggenheim Foundation (1955-56).

<sup>2.</sup> Honorary Associate, Australian Museum, 47 Bundarra Rd, Bellevue Hill, Sydney.

(Maa); I. minor Evans, Eramboe (Maa); Eurymeloides punctata Signoret, Port Moresby (Gressitt). Another eurymelid, Eurymelessa moruyana (Distant), Mt Lamington (Womersley), is contained in the collection of the South Australian Museum.

Two new species from New Guinea are described below. The aedeagus of *Eury-meloides nigra*, which has not previously been illustrated, is figured (Fig. 1 H), and a new species is described from Western Australia.

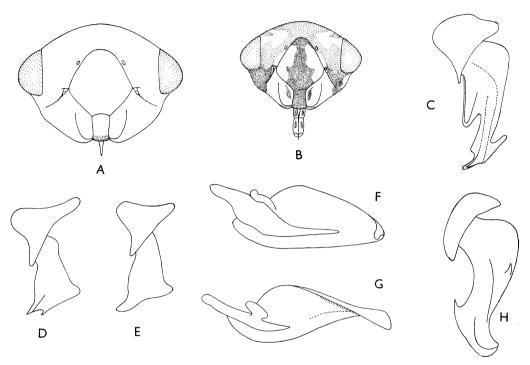


Fig. 1. A, *Ipoella wallacei*,  $\mathcal{P}$ , face of head; B,  $\mathcal{O}$ , face of head; C, aedeagus; D, *Ipoides maculata*, aedeagus; E, *Ipoides eramboensis*, aedeagus; F, *I. maculata*, paramere and subgenital plate; G, *I. eramboensis*, paramere and subgenital plate; H, *Eurymeloides nigra*, aedeagus.

# Genus Ipoides Evans

1934, Trans. Roy. Soc. S. Aust. 58: 155.

Type-species: Ipoides hackeri Evans.

Ipoides eramboensis Evans, new species Fig. 1 E, G.

Length, 3, 4 mm, 4 4.5 mm. General coloration, pale brown. Face of head pale brown, vertex transversely striated. Pronotum pale brown. Scutellum brown with a pair of broad, curved, yellowish stripes. Tegmen pale hyaline brown; veins dark brown; clavus and sides of veins in remainder of tegmen with microtrichiae. Male genitalia as in Fig. 1 E, G.

Holotype & (Bishop 9874), SW New Guinea, Eramboe, 1.II.1962, T. C. Maa. Allotype

♀ and 2 Paratype ♂♂, same data as holotype.

I. eramboensis resembles I. minor Evans in size and general appearance. It differs in the coloration of the tegmen and in the shape of the aedeagus.

# Ipoides maculata Evans, new species Fig. 1 D, F.

Length, &, 3.8 mm, &, 4.7 mm. General coloration, brown with white markings. Face of head pale, or dark, brown, sometimes with a mottled appearance. Pronotum pale, or dark, brown. Scutellum concolorous with pronotum with 2 pale, or obscure, curved yellowish markings. Tegmen, and clavus pale, or dark, brown; remainder pale hyaline brown, or vitreous, sometimes with white markings proximally and at apices of anal veins; clavus and sides of veins with raised spots. Male genitalia as in Fig. 1 D, F.

Holotype & (Bishop 9875), SW New Guinea, Eramboe, 1.II.1962, T. C. Maa. Allotype  $\mathcal{P}$ , 3 Paratype & and 3 Paratype  $\mathcal{P}$ , same data as holotype. *I. maculata* may be distinguished from other described species in the genus *Ipoides* by its coloration and the characteristic shape of the aedeagus.

## Genus Ipoella Evans

1934, Trans. Roy. Soc. S. Aust. 58: 157.

Type-species: Ipoella fidelis Evans.

# Ipoella wallacei Evans, new species Fig. 1 A, B, C.

Length, 3, 4.8-6 mm, 9, 6-6.5 mm. Coloration, bright yellow with, or without, dark markings on the head and pronotum. Face of head: 3, with a median irregularly shaped black marking bordered with ivory; vertex and genae black and brown; 9, yellow, narrowly pale brown and yellow posteriorly. Pronotum, 3, gray or yellow mottled with pale ochreous brown or dark brown: 9, similarly colored to 3, or entirely pale yellow. Tegmen bright yellow, costal margin proximally brown. Thorax and femora sometimes, in part, black or brown. Male genitalia, aedeagus as in Fig. 1 C.

Holotype & and Allotype 우 (Australian Museum), Western Australia, Millstream area, IV.1971, M. Wallace. Paratypes, 3 장, 3 우우, same data as holotype.

This distinctive, sexually dimorphic species cannot be confused with any previously described in the genus *Ipoella*.

### Family CICADELLIDAE

# Subfamily HECALINAE

#### Tribe HECALINI

Two species of Hecalini have previously been recorded from New Guinea (Linna-vuoriella arcuata (Motschulsky) and L. porrecta (Walker)), (Evans, 1966). Both species, which are of widespread occurrence in the Oriental region, are found also in northern Australia. L. arcuata is represented in the Bishop collection from the Mt Hagen area

and L. porrecta from Banz, Maprik and elsewhere. The collection contains also a single specimen of L. australis (Evans) from Merauke and some specimens of an undescribed species belonging to a new genus which is described below. A new genus and new species from tropical Australia is also described.

#### Genus Alospanbergia Evans, new genus

The spatulate head, which narrows apically, is longer in the  $\mathcal{P}$  than in the  $\mathcal{P}$ . On the face the labium terminates between the fore coxae, and the convex frontoclypeus is overhung by the concave vertex. The ocelli, which are situated on a narrow marginal rim separating the face from the crown of the head, are close to, but not in contact with, the eyes. The pronotum is wide laterally and broadest posteriorly. The tegmina, which narrowly overlap apically, have prominent veins and 2 partially developed anal veins.

Type-species: Alospanbergia bella n. sp.

Alospanbergia resembles Spanbergiella Signoret in the shape and coloration of the head and thorax. It differs in having more prominent veins in the tegmen and in the presence of two, instead of a single, anal vein.

## Alospanbergia bella Evans, new species Fig. 2 A, B, C.

Length, ♂, 5 mm, ♀, 5.8 mm. Coloration, green, orange, black, white and brown. Face of head, vertex, pale yellowish green, remainder black. Crown pale green, narrowly margined

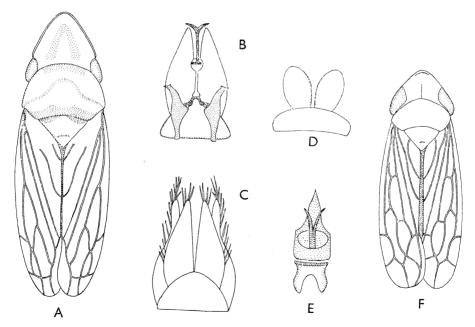


Fig. 2. A, Alospanbergia bella; B, & genitalia, dorsal aspect; C, same, ventral aspect; D, Micrelloides molaris, 9th sternum and subgenital plates; E, aedeagus and basal plate; F, dorsal aspect.

with black anteriorly and with a prominent orange V-shaped mark. Pronotum pale green, narrowly orange anteriorly, brown posteriorly. Tegmen pale yellowish hyaline brown with opaque white markings, or, with a tortoiseshell pattern of opaque black and pale hyaline brown and white; apex, pale hyaline brown narrowly margined with dark brown. Male genitalia as in Fig. 2 B, C.

Holotype & (Bishop 9876), NE New Guinea, Morobe district, Lake Trist, 1820 m, 21. XI.1960, G. A. Samuelson (Malaise trap). Allotype Q (Bishop), NE New Guinea, Daulo Pass, Asaro-Chimbu div., 3000 m, J. L. Gressitt. Paratypes, 2 &&, one same data as allotype, one, Tomba, 38 km W of Mt Hagen (Sedlacek).

#### Genus Micrelloides Evans, new genus

The face of the head is evenly convex and the labium is almost as long as the anteclypeus. The lora, anteriorly, are widely separated from the anterior margins of the maxillary plates. The antennal bases extend from the eyes to the sides of the frontoclypeus. The ocelli, which are on the sides of a thickened marginal rim separating the face from the crown of the head, are closely adjacent to the eyes. The crown, which is slightly concave, is broadly arrow-shaped and the sides of the pronotum narrowly separate the eyes from the bases of the tegmina. The tegmina have prominent veins and a wide appendix. In the male genitalia the 9th sternum is almost rectangular and the subgenital plates are broad and short.

Type-species: Micrelloides molaris n. sp.

Micrelloides resembles Alospanbergia n. gen. in its small size and in the general coloration of the tegmina. It differs in cephalic and male genitalia characteristics.

# Micrelloides molaris Evans, new species Fig. 2 D, E, F.

Length, &, 3.6 mm, &, 4 mm. Coloration, pale and dark brown and yellowish. Face of head brown, muscle impressions on frontoclypeus pale brown. Crown, pronotum, and scutellum, pale yellowish white with 2, faint, broad, longitudinal stripes and an additional 2 pairs of similarly colored stripes on the pronotum. Tegmen, distal half of costal margin broadly yellow, remainder hyaline gray and black; veins broadly pale brown margined with black; apex of tegmen and R1a and R1b, white. Male genitalia as in Fig. 2 D, E.

Holotype & and Allotype 우 (Australian Museum), Millstream area, Western Australia, IV.71, M. Wallace. Paratypes, 3 우우, 1 &, same data as holotype. Another specimen from "Queensland".

# Subfamily NIRVANINAE

Although this essentially tropical, and largely Oriental, group of leafhoppers is richly represented in New Guinea, none, apparently, has been recorded previously from the island.

The Bishop collection contains representatives of 20 species. Two of these, *Tortor daulias* Kirkaldy and *Stenometopius bunyensis* Evans occur also in Australia and one, *Nirvanoides amboinensis* Baker, was described originally from Amboina. Nine new species are described below. The remainder, which are undescribed for lack of adequate mate-

rial, belong to the genera *Pseudonirvana* Baker (6), *Mukaria* Distant (1) and *Stenometo-* pius Matsumura (1).

# Tortor daulias Kirkaldy

1907, Bull. Hawaii Sug. Pl. Ass. Exp. Sta. 3: 42. NE New Guinea, Nondugl, 1600 m (Gressitt); SE New Guinea, Oriomo Govt. Sta. (Gressitt).

#### Stenometopius bunyensis Evans

1966, Austral. Mus. Mem. 12: 150. NE New Guinea, Nondugl, 1600 m (Gressitt).

# Nirvanoides amboinensis Baker Fig. 4 H.

1923, Philipp. J. Sci. 23: 396.

NW New Guinea, Vogelkop (Gressitt, Maa); Wissel Lakes (Gressitt); Genjam (Maa).

#### Genus Mukaria Distant

1908, Faun. Brit. Ind. Rhyn. 4: 269.

Type-species: Mukaria penthimiodes Distant (Ceylon).

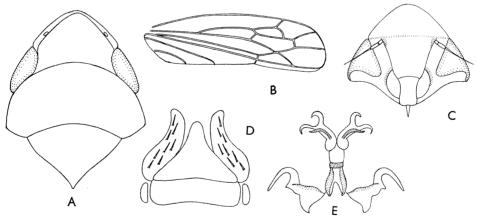


Fig. 3. A, Mukaria variabilis, head and thorax; B, tegmen; C, face of head; D, &, apex of abdomen; E, aedeagus, basal plate, and parameres.

# Mukaria variabilis Evans, new species Fig. 3 A-E.

Length, &, 4 mm, &, 4.8 mm. Coloration black and brown with pale markings on tegmina. Face of head medially brown, laterally and posteriorly, black; antennal segments, basally, yellow; frontoclypeus excavate as far as antennae, posteriorly convex. Crown with anterior, elevated, margin bearing the ocelli, laterally shiny black. Pronotum and scutellum concolorous with crown. Tegmen partly pale, or dark, hyaline brown, with a variable color pattern; clavus sometimes with a vitreous, or pale hyaline brown, streak and with 2 oblique, distal, pale markings. Thorax and abdomen, ventral surface, black; abdominal segments margined

with white; legs pale and dark brown. Male genitalia as in Fig. 3 D, E.

Holotype & (Bishop 9877), NE New Guinea, Kassam, 1350 m, 48 km E of Kainmantu, 28.X.1959, T. C. Maa. Allotype & 1 Paratype & and 1 Paratype & same data as holotype; 1 Paratype & New Britain, Vunabakan (Maa); 2 Paratype & Goroka (Gressitt).

#### Genus Pseudonirvana Baker

1923, Phillipp, J. Sci. 23: 386.

Type-species: Pseudonirvana sandakanensis Baker (Borneo).

Species in this genus have very distinctive color patterns. For this reason it has been thought unnecessary to illustrate the male genitalia of more than one of those described below.

# Pseudonirvana hieroglyphica Evans, new species Fig. 4, G.

Length 3, 5.2 mm, 9,6 mm. Coloration pale yellow with large orange and small brown markings. Crown of head and pronotum each with 4 bold orange markings, the latter also with 4 narrow brown markings against the hind margin. Scutellum pallid with 4 small brown markings. Tegmen orange, or pallid, with scattered brown scribble markings and 2 oblique V-shaped, brown edged pale markings against the costal border distally.

Holotype & (Bishop 9878), Bismarck Arch., Rossum, 6 km SE of Lorengau, 180 m, 23.XII.1959, T. C. Maa. 2 Paratype & 1 Paratype , same data as holotype.

#### Pseudonirvana pallida Evans, new species Fig. 4, A.

Length, 3, 5,2 mm. General coloration whitish, partially suffused with pale brown and pink. Crown of head and pronotum pale whitish brown with brown markings. Tegmen, clavus proximally brown, distally pale pinkish white, both colored areas extending to rest of tegmen, the pink area terminating in a broadly club-shaped marking, margined with brown, from which arise 5 narrow, brown, stripes extending to the costal border; venation obscure; costal margin forming a right angle with apex of tegmen.

Holotype & (Bishop 9879), New Britain, Gazelle Pen., Bainings, St. Paul's, 350 m, 3.IX.1955, J. L. Gressitt. Paratypes, 5 & same data as holotype.

# Pseudonirvana ocellata Evans, new species Fig. 4 C, D, E.

Length,  $\sigma$ ,  $\varphi$ , 5.2 mm. Coloration pale brown and white, or orange, with a prominent dark brown apical spot on tegmen. Crown of head pale brown, or orange, with a median, and marginal, dark brown stripes; pronotum concolorous with crown, with lateral dark brown stripes continuing onto clavus of tegmen. Tegmen finely punctate; clavus largely white or orange; remainder white and brown, or orange, with 4 or 5 narrow, brown stripes radiating from a pale pink, or orange, subapical area; apically a prominent dark brown or black circular marking; apex of tegmen rounded. Male genitalia as in Fig. 4 E.

Holotype & (BISHOP 9880), W New Guinea, Central Mts., Archbold Lake, 760 m, 26. XI.1956, L.W. Quate. Allotype ♀, same data as holotype. Paratypes, 3 ♀♀, Waris, 450-500 m (Maa).

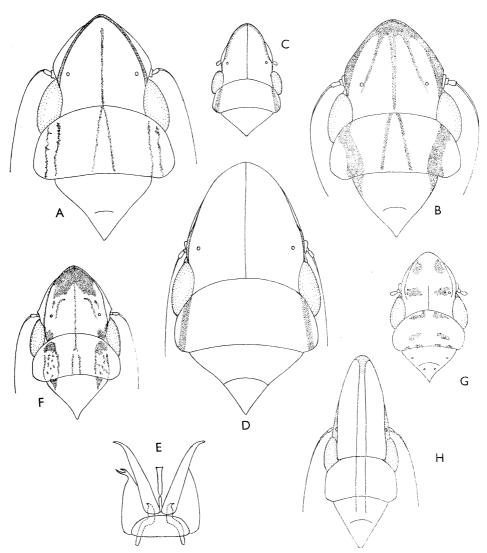


Fig. 4. A, *Pseudonirvana pallida*, head and thorax; B, *P. pulchra*, head and thorax; C, *P. ocellata*,  $\mathcal{O}$ , head and thorax; D,  $\mathcal{O}$ , head and thorax; E, male genitalia; F, *P. magnifica*, head and thorax; G, *P. hieroglyphica*, head and thorax; H, *Nirvanoides amboinensis*, head and thorax.

# Pseudonirvana pulchra Evans, new species Fig. 4 B.

Length, 3, 4.7 mm, \$\varphi\$, 5.5 mm, Coloration whitish, pale and dark brown, pink and orange. Crown of head, pronotum and scutellum, pale yellowish brown with dark brown markings. Tegmen, clavus with posterior continuation of lateral thoracic brown stripes; remainder hyaline white; costal area broadly hyaline white, or orange, with 4 pale and 1 dark brown stripe arising from a circular area containing brown markings; area adjacent to clavus dark brown with

a central longitudinal narrow orange stripe; apex of tegmen at right angles to costal margin with a circular dark brown marking.

Holotype & (Bishop 9881), Bismarck Arch., New Ireland, Kavieng, 2.VII.1959, J. L. Gressitt. Allotype ♀ and 5 Paratype ♂♂, same data as holotype.

# Pseudonirvana magnifica Evans, new species Fig. 4 F.

Length, &, 5 mm, &, 6.7 mm. Coloration orange, yellow, dark brown and black. Crown of head pale brown, dark brown anteriorly. Pronotum and scutellum orange patterned with brown. Tegmen apically, narrowly rounded; clavus orange with 2 yellowish longitudinal stripes margined with black and continuing posteriorly; costal margin broadly white and yellow with 5 oblique pale brown stripes arising from an angular area; apex of tegmen pale pink with dark brown markings.

Holotype & (Bishop 9882), SW New Ireland, Gilingil Pl'n, 8.VII.1956, J. L. Gressitt. Allotype  $\mathcal{P}$ , SW New Ireland, Lower Kait R., 15.VII.1956, J. L. Gressitt. Paratypes, 1& same data as holotype; 1&, New Britain, Gazelle Pen. (Gressitt); 1  $\mathcal{P}$ , NW New Guinea, Oransbari (Straatman); 1  $\mathcal{P}$ , SW New Guinea, Vogelkop (Maa).

## Genus Ophiuchus Distant

1918, Faun. Brit. Ind. Rhyn. 7: 34.

Type-species: Ophiuchus princeps Distant (India).

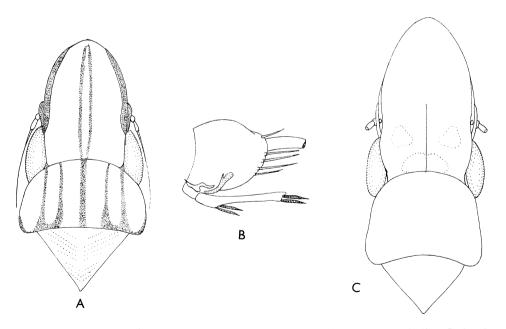


Fig. 5. A, Ophiuchus lineatus, head and thorax; B, O. distanti, & genitalia; C, head and thorax.

# Ophiuchus lineatus Evans, new species Fig. 5 A.

Length, 3, 5 mm, \$\, 6.2 mm. Coloration pale yellowish, dark brown, and black. Crown shallowly concave, pale yellowish, narrowly, or broadly, margined with very dark brown and with a pair of median, narrow, longitudinal, dark brown stripes. Pronotum yellow with 4 longitudinal, or with a single median, longitudinal black stripe; laterally and posteriorly, broadly dark brown. Scutellum brown. Tegmen black, sometimes with a yellow stripe on the clavus; costal area with 3 oblique brown stripes, proximally yellow, distally, between 2 hindmost stripes, hyaline white; apex brown; subapical cross veins white or yellow.

Holotype & (Bishop 9883), SW New Guinea, Vogelkop, Bomberi, 700-900 m, 5.VII. 1959, J. L. Gressitt. Allotype ♀, same data as holotype. 1 Paratype ♀, NE New Guinea, Adelbert Mts (Gressitt).

# Ophiuchus distanti Evans, new species Fig. 5 B. C.

Length, &, 4.6 mm, \$\, 6.8 mm. Coloration black, or very dark brown, with pale markings. Crown of head shallowly concave, black, pale yellowish posteriorly, or with 3, or 4, yellowish markings. Pronotum and scutellum, black or very dark brown. Tegmen largely dark shiny brown, sometimes with an obscure yellow stripe on the clavus; costal area medially with 3 oblique brown stripes; subapical cross veins white or yellow. Male genitalia as in Fig. 5 B.

Holotype & (Bishop 9884), NE New Guinea, Bainyik, nr. Maprik, 225 m, 21.VI.1961, J. L. Gressitt. Allotype &, same data as holotype. Paratypes, 1 &, NW New Guinea, (Maa); 1 &, NE New Guinea, Maprik (Gressitt): 1 & NW New Guinea, Bodem (Maa).

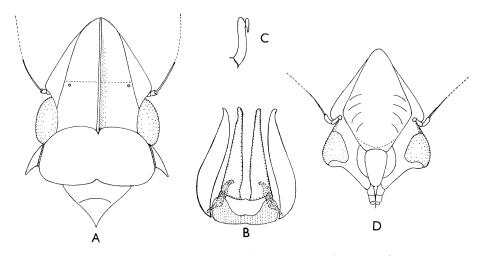


Fig. 6. Stenotortor madangensis, A, head and thorax; B, & genitalia, ventral aspect; C, aedeagus; D, face of head.

#### Genus Stenotortor Baker

1923, Philipp. J. Sci. 23: 377.

Type-species: Stenotortor inocarpi Baker (Singapore).

### Stenotortor madangensis Evans, new species Fig. 6 A-D.

Length, 3, 4 mm, \$\phi\$, 5.6 mm. Coloration dark brown and black with yellow and white markings. Face of head with fine hairs except laterally. Crown dark brown and black with irregular yellow markings, with a median, longitudinal, carina which extends slightly beyond the anterior margin of the pronotum; antennal ledges wide posteriorly narrowing apically; pronotum punctate, parallel sided, laterally carinate with apically acute paranotal lobes; anteriorly black, medially and posteriorly ivory. Tegmen punctate, elytriform, with an irregular and variable pattern of brown and white; venation obscure. Male genitalia as in Fig. 6 B, C.

Holotype & (BISHOP 9885), NE New Guinea, Madang, 22.X.1958, J. L. Gressitt. Allotype & SW New Guinea, Vogelkop, Bomberi, 700-900 m, 6.VI.1959, J. L. Gressitt. Paratypes, 1 & same data as holotype; 1 & Adelbert Mts, Wanuma (Gressitt).

Stenotortor madangensis resembles S. inocarpi Baker in the shape of the face of the head but differs markedly in coloration and in having oblique, instead of parallel sided, lateral carinae on the crown.

### Subfamily PENTHIMIINAE

Although the New Guinea Penthimiinae have been the subject of a recent study (Evans, 1972) it is necessary to refer to them once more in order to describe a new species taken on *Nothofagus* and to correct errors in the work referred to above.

## Genus Vertigella Evans

1972, Pacif. Ins. 14: 182.

Type-species Vertigella kaindensis Evans.

# Vertigella bicolor Evans, new species Fig. 7 A-C.

Length, 3, 4 mm. General coloration black and pale yellowish brown. Face of head black, frontoclypeus flat, thickened apex pale yellow. Crown, pronotum, and scutellum black. Tegmen black with 2 yellowish brown markings of variable extent, the proximal one extending either from the costal border as far as M, or reaching broadly as far as the hind margin of the tegmen; distal marking in the nature of a transverse fascia of variable width. Thorax and abdomen, ventral surface black; femora black; fore and middle tibiae pale yellow; hind tibiae black with yellow spines. Male genitalia as in Fig. 7 B, C.

Holotype & (Bishop 9886), NE New Guinea, Mt Kaindi, 2350 m, J. L. Gressitt, 8.II. 1971, on *Nothofagus carri*. Paratype, 1  $\circlearrowleft$ , same data.

Corrigenda: In Evans (1972) the illustrations of Vulturnus testudinea Evans (Fig. 5 E, J, K) have been incorrectly labelled "Vulturnus quatei". These figures are herewith assigned to V. testudinea.

The illustrations labelled V. testudinea in the same paper (Fig. 5 D, H. I) illustrate the species described below as  $Vulturnus\ quatei\ n$ . sp.

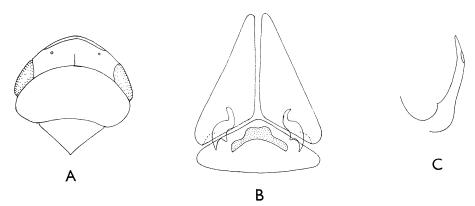


Fig. 7. Vertigella bicolor, A, head and thorax; B, & genitalia, in part; C, aedeagus.

# Vulturnus quatei Evans, new species

Length, &, &, 5 mm. General coloration mottled brown. Face of head black. Crown evenly and finely mottled with pale and dark brown and sometimes with a pair of bold, yellow, markings posteriorly. Pronotum concolorous with crown, somewhat paler antero-laterally. Scutellum concolorous with pronotum, with a pair of yellow lateral markings. Tegmen pale hyaline brown evenly mottled with brown; appendix and 2 adjacent cells, smoky brown.

9. Face black, maxillary plates, in part, brownish yellow. Crown partly pale yellow, partly pale and dark brown. Pronotum concolorous with the crown. Scutellum wholly, or partly, yellow. Tegmen hyaline dirty white mottled with light and dark brown. Male genitalia as in Fig. 5 H, I. (Evans, 1972).

Holotype & (BISHOP 9887), NW New Guinea, Wisselmeren, Moanemani, Kamo V., 1500 m, 14.VII.1962, J. Sedlacek. Allotype  $\mathcal{P}$ , NW New Guinea, Wisselmeren, Enarotadi, 1850 m, 4.VII.1962, J. Sedlacek. 1 Paratype  $\mathcal{P}$ , Mt Wilhelm, 5000 m, 2.VII. 1955 (Gressitt).

# Subfamily XESTOCEPHALINAE

Although no Xestocephalinae have been described from New Guinea the family is well represented in the island and numerous species of Xestocephalus Van Duzee are contained in the Bishop collection. The species described below is ascribed to a new genus because, though clearly belonging to this subfamily, it differs in proportions and general appearance from other known representatives.

#### Genus Aloxestocephalus Evans, new genus

The face of the head, which is as wide as long, is convex and the labium terminates between the bases of the fore tibiae. The ante-clypeus, which is transversely striated, is anteriorly W-shaped and narrows posteriorly. The frontoclypeus, anterior to the antennae, is finely rugose and transversely striated posteriorly. The antennal bases are closely adjacent to the sides of the frontoclypeus and the basal segments are not enlarged. The filiform antennae are approximately half the width of the face across the eyes. The ill-defined hind margin of the

frontoclypeus is close to, and parallel with, the hind margin of the face. The crown, which is sharply differentiated from the face, is slightly wider in the center than against the eyes and is anteriorly declivous. The declivous pronotum is wide laterally and the scutellum convex posteriorly. The tegmina have narrow appendices and an oval wax plate adjacent to the costal border; R1a is widely separated from R1b and Rs + M1 + 2 is lacking. The hind tibiae have a dense armature of long spines and the basal segment of the hind tibia is considerably longer than the combined lengths of the other segments.

Type-species: Aloxestocephalus nigrobrunneus n. sp.

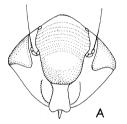
Aloxestocephalus differs from Xestocephalus in having the crown of the head sharply differentiated from the face and small, instead of large, basal antennal segments.

# Aloxestocephalus nigrobrunneus Evans, new species

Fig. 8 A, B.

Length, 9, 5.8 mm. General coloration black, with brown and yellowish markings; the whole

insect with a waxy bloom giving a bluish appearance. Face of head, anteclypeus brown, medially black. Frontoclypeus and area adjacent to eyes, brown; lora and maxillary plates black. Pronotum black with a pair of pale brown markings anteriorly. Scutellum laterally black, medio-anteriorly pale brown with a black longitudinal stripe; posteriorly brown with 2 black markings. Tegmen blackish brown, costal area, except anteriorly, broadly yellowish brown. Legs pale yellowish. Abdomen, ven-



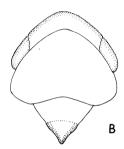


Fig. 8. Aloxestocephalus nigrobrunneus, A, face of head; B, head and thorax, dorsal.

tral surface blackish brown; sides of 9th tergum with dense pale yellow spines.

Holotype Q (BISHOP 9888), NE New Guinea, Torricelli Mts., Mobitei, 750 m, 28.II. 1959, W. W. Brandt. Paratype, 1 Q, same data.

Acknowledgements: Thanks are expressed to the Trustees of the B. P. Bishop Museum for having been permitted to study part of their collection of New Guinea leafhoppers, and to my wife for assistance in the preparation of illustrations.

# REFERENCES

Evans, J. W. 1966. The leafhoppers and froghoppers of Australia and New Zealand. *Austral. Mus. Mem.* 12: 1-347.

1972. 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. *Pacif. Ins.* 14: 169-200.