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NEW SPECIES AND NEW RECORDS OF FULGORIDAE (HOMOPTERA: FULGOROIDEA) FROM NEW GUINEA[1]

By **R. G. Fennah**[2]

Abstract: Three new genera and 17 new species of Fulgoridae are described from New Guinea, the status of 3 taxa is changed and new records of the occurrence of known species in the island are reported.

This report is based mainly on Fulgoridae in the collections of the Bishop Museum (BISHOP), supplemented by hitherto unreported material in the accessions of the British Museum (Nat. Hist.) (BMNH). Specimens in Bishop Museum were collected by W. W. Brandt (1956–57), J. L. Gressitt (1955), D. E. Hardy (1957), T. C. Maa (1959) and F. E. Skinner (1944), and those in the British Museum (Nat. Hist.) by L. E. Cheesman.

The Fulgoridae known from New Guinea were discussed by Lallemand (1963) in his study of the southeast Asian members of the family. In the present report, 3 new genera and 18 new species are added to the faunal list, and the status of 3 taxa is changed. The sum of knowledge to date is still too small to reveal the complete distribution of any 1 species in the mainland area, but there is now clear evidence of substantial differentiation at specific and subspecific levels.

On present evidence, New Guinea has an almost insular fauna of Fulgoridae. Only 8 genera are known; of these, 7 are either confined to the mainland or do not occur beyond the Moluccas, and the remaining 1 extends into Australia.

SYSTEMATIC CHARACTERS

In the past, much emphasis has been placed on coloration of the tegmina, wings and body for definition of species. It has become evident, however, that, whereas color can be used for recognition of genera and, at the opposite extreme, restricted local populations, there is uncertainty as to which characters can be relied upon as indicators of specific difference. In this study, differences in shape of elements of the male genitalia have been taken as the paramount criterion of specific difference, and other characters have been used insofar as they appear to change in conformity with changes in genitalic structure. The shape of the cephalic process differs so markedly between genera as to be

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characteristic, or virtually so; it also differs appreciably between species and, in lesser degree, between local populations. Differences, though strong only at the generic level, are also found in the shape of the posterior angle of the pronotum. In some genera, species may differ in the density of setae on the plantar surface of the basal 2 segments of the hind tarsi. These surfaces are usually covered sparsely and more or less evenly with slender setae, but in some species additional setae of the same kind are developed towards the distal end of the segment so as to form a comparatively dense pad. Even when setae have been worn away from such a pad, their former presence is revealed by the dense aggregation of setal bases that remain. In the fulgorid tegmen, it has been customary to distinguish between 2 conditions, "clavus closed" and "clavus open," which essentially refer to the directions taken by the vein lying along and immediately behind the claval suture (Cu_2) and the common claval vein (Pcu + 1A). In some fulgorid genera, the common claval vein passes directly to the commissural margin of the tegmen and unites with it; in other genera, it curves parallel with the commissural margin, continues past the point on the margin indicated by extrapolation of the claval suture, and ultimately meets the apical margin, perhaps after forking. It is the former condition that is found in all New Guinea genera. In a similar way, Cu_2 may continue its straight course along the claval suture and definitively unite with the commissural margin. This condition obtains in 1 New Guinea genus. Alternatively, Cu_2 may terminate at the anal angle of the tegmen, or only slightly basad of it. In *Desudaba* Walker it forks deeply, and often twice, before doing so. In *Ulasia* Stål and *Neolieftinckana* Lallemand it closely approaches the commissural margin before curving parallel to it, and at the nearest point is linked to the margin by an extremely short and thickened transverse veinlet, which continues a similar veinlet between the posterior branch of Cu_1 and Cu_2. In other genera, Cu_2 may take the same course towards the anal angle, and there may be a short veinlet bridging the narrowest gap between this vein and the commissural margin, but this vein is of irregular occurrence, is usually oblique, and is not callussed or in any way different, except in length, from other transverse veinlets that follow. A Cu_2 of this type may occasionally fork just before joining the tegminal margin. In male genitalia, differences are to be found at both the generic and specific levels in the shape of the anal segment and the lateral margin of the pygofer, and in the structure of the aedeagus and of the genital styles. Of these differences, the most easily observed are those in the shape of the anal segment and those of 2 lobes developed on the dorsal margin of the genital style. The basal lobe (*dorsolateral process*) arises on the dorsal margin, is inflected laterad and narrows, with different degrees of abruptness, to a point; the distal lobe (*apical angle*) is vertical and forms the apical angle of the style. When 1 of these lobes is visible to its maximum extent, the other is seen almost edgewise. In this report, the viewpoint adopted for illustrating the genital style is posterior and very slightly lateral, so as to show the dorsolateral process at its greatest extent. The aedeagus varies substantially between genera but comparatively little between species. In view of the difficulty of securing a sufficiently uniform degree of inflation of the membranous sacs that form most of this

organ to enable a close comparison to be made between specimens, only differences in the shape or size of any pigmented sclerites present are mentioned. In the female genitalia, small differences between species are sometimes to be found in the shape of the anal segment and, in *Neolieftinckana*, in the surface contours of the dorsolateral angles of the 9th tergite.

Key to genera of Fulgoridae of New Guinea

1. Tegmina with Cu_2 forking distally into 2–5 subparallel veins that enter apical angle; membrane with 2 black spots in M_2 ..... **Desudaba**
   Tegmina not as above 2
2. Pronotum about 1.3 × as broad as head with eyes ..... **Birdantis**
   Pronotum more than 1.4 × as broad as head with eyes 3
3. Tegmen with Cu_2 straight throughout, distinctly entering commissural margin much basad of anal angle ..... **Saramel,** n. gen.
   Tegmen with Cu_2 not as above 4
4. Frons with lateral carinae percurrent or nearly so, more or less parallel and relatively close together 5
   Frons with lateral carinae obsolete distally, not parallel and not close together 7
5. Cephalic process in form of a granular mass occupying middle area of sunken disc of vertex ..... **Nisax,** n. gen.
   Cephalic process long, sword- or spearhead-shaped 6
6. Cephalic process laterally compressed, extending dorsad; lateral mesonotal carinae parallel, abruptly curving mesad distally, and almost transverse to near middle ..... **Ulasia**
   Cephalic process dorsoventrally compressed, strongly reflected caudad above vertex; lateral mesonotal carinae evenly curving mesad throughout ..... **Neolieftinckana**
7. Cephalic process about 3 × as broad as long in middle; lateral margin of pronotum formed by lower lateral carina ..... **Ombro,** n. gen.
   Cephalic process relatively much narrower; lateral margin of pronotum formed by upper lateral carina ..... **Bloeteanella**

Genus **Birdantis** Stål

Birdantis Stål, 1863: 581 (type-species: *Birdantis decens* Stål, 1863: 581).

Key to subgenera of *Birdantis*

Anterior margin of vertex straight, no deep transverse sulcus behind it ..... **Myrilla**
Anterior margin of vertex concave, a deep transverse sulcus behind it ..... **Birdantis**

Subgenus **Myrilla** Distant

Myrilla Dist., 1888: 487 (type-species: *Myrilla obscura* Distant, 1888: 487).

Key to species of the subgenus *Myrilla*

Wings entirely infuscate ..... **papuana**
Wings hyaline in apical 1/3 or 2/5 ..... **obscura**

Birdantis (**Myrilla**) **obscura** Distant

Myrilla obscura Dist., 1888: 487.

MATERIAL EXAMINED. PNG: New Guinea (SE): 1 ♂, 1 ♀, Kokoda-Pitoki, 450 m, 24.III.1956, J. L. Gressitt; IRIAN: New Guinea (NW): 1 ♂, River Tor (mouth) 4 km E of Hol Maffen, 2.VII.1959, T. C. Maa.

Birdantis (Myrilla) papuana Distant

Myrilla papuana Dist., 1906: 29.

MATERIAL EXAMINED. PNG: New Guinea (SE): 1 ♂, 1 ♀, Normanby I, Wakaiuna, Sewa Bay, 5–9.XI.1956, 1–8.I.1957, W. W. Brandt.

SUBGENUS **Birdantis** Stål

KEY TO SPECIES OF THE SUBGENUS *Birdantis* (adapted from Lallemand 1959)

1. Frons without spots or with either a transverse band near base or a spot extending on to vertex, black 2
   Frons with 3, 5, or 6 longitudinal lines or bands, complete or present in part, black 6
2. Tegmina with 2 differently coloured areas, hyaline only in distal portion 3
   Tegmina entirely hyaline except for costal cell ..... **bernhardi**
3. Frons with a dark transverse band at basal margin (on upper surface of head) ..... **delibuta collaris**
   Frons with a spot at base, extending on to vertex, or devoid of marking 4
4. Frons with a spot at base, extending on to vertex 5
   Frons devoid of marking ..... **hesperugo,** n. sp.
5. Frons with lateral carinae subparallel to median carina ..... **enyo,** n. sp.
   Frons with lateral carinae strongly converging distad, not parallel, to median carina ..... **semihyalina**
6. Frons with 6 fuscous or black vertical lines. Tegmina with corium hyaline except in costal cell ..... **bloetei**
   Frons with 3 or 5 black vertical lines 7
7. Frons with 3 black vertical lines 8
   Frons with 5 black vertical lines ..... **lineatifrons** and **dorsinigra**
8. Vertex less than 2.5 × broader between basal angles than long at sides; frons with vertical black lines not uniting 9
   Vertex 2.5 × broader between basal angles than long at sides; frons with vertical black lines united basally ..... **similis**
9. Vertex 2.3 × broader between basal angles than long at sides ..... **decens**
   Vertex 2.0 × broader between basal angles than long at sides ..... **delibuta**

Birdantis (Birdantis) delibuta Stål

Birdantis delibuta Stål, 1863: 582.

See remarks under *B. delibuta collaris*, below.

Birdantis (Birdantis) delibuta collaris (Walker)

Polydictya collaris Walker, 1870: 98.

The nominal species *B. collaris* appears to be the geographical representative on Morotai of the Ternate species *B. delibuta* and has been treated as a geographical subspecies of the latter by Lallemand (1959: 193), but its status is likely to be settled only when males of the 2 populations can be compared. In the limited material available, the frons in the

Morotai population is more strongly transversely convex than in typical *B. delibuta* and lacks the submedian depressions and vertical black stripes present in the latter. The Amboina male from which FIG. 7 was prepared has only 2 vertical black stripes on the frons and may represent another taxonomically distinct population.

Birdantis (Birdantis) semihyalina (Distant) FIG. 5, 6, 29, 30

Myrilla semihyalina Dist., 1906: 29.

The specimen from Wetter that Distant referred to this species is considered to be the geographical representative of a new species described below.

Birdantis (Birdantis) bernhardi Lallemand

Birdantis bernhardi Lall., 1959: 196.

MATERIAL EXAMINED. PNG: New Guinea (SE): 1 ♂, Fly River, Geo. Soc. Exped. (no date); IRIAN: New Guinea (NW): 2 ♂♂, Humboldt Bay Distr., 1937, W. Stuber.

Birdantis (Birdantis) bloetei Lallemand

Birdantis bloetei Lall., 1959: 194.

MATERIAL EXAMINED. IRIAN: New Guinea (NW): 1 ♂, Waris, S of Hollandia, 450–500 m, 8–15.VIII.1959, T. C. Maa.

Birdantis (Birdantis) similis Schmidt FIG. 1, 2

Birdantis similis Schmidt, 1911: 164.

MATERIAL EXAMINED. PNG: New Guinea (NE): 1 ♂, Torricelli Mts, Mokai Vill., 750 m, 16–31.XII.1958, W. W. Brandt.

The male anal segment and genital style of *B. decens* Stål from Aru are figured for comparison (FIG. 3, 4).

Birdantis (Birdantis) hesperugo Fennah, new species FIG. 8–18

♂. Vertex broader between basal angles than long at sides (2: 1), frons with carinae very feeble, lateral carinae moderately converging distad. Rostrum reaching to apex of abdomen. Posttibiae with 6 or 7

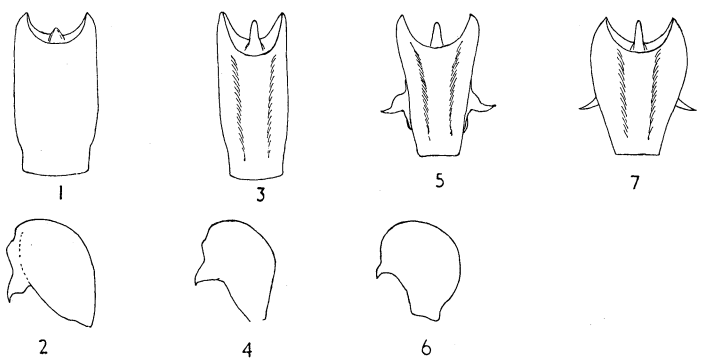

FIG. 1–7. *Birdantis* species. 1–2, *Birdantis similis* Schmidt: 1, anal segment of ♂, dorsal; 2, left genital style, posterolateral. 3–4, *Birdantis decens* Stål: 3, anal segment of ♂, dorsal; 4, left genital style, posterolateral. 5–6, *Birdantis semihyalina* Distant: 5, anal segment of ♂ and dorsolateral processes of genital styles, dorsal; 6, left genital style, posterolateral. 7, *Birdantis delibuta* Stål: anal segment of ♂ (from Amboina) and dorsolateral processes of genital styles, dorsal.

spines laterally, 5 or 6 apically; basal metatarsal segment with 7 or 8 teeth on apical margin, 2nd segment with 7 teeth. Tegmina opaque in basal 3/4, with cells of opaque part broader than long, only about 1/2 as long as cells of hyaline area, but not distinctly crowded together at level of stigma to form a definite transverse band; 6–7 cells in clavus distad of union of common claval vein and commissural margin. Pale green to light greenish yellow; a spot behind each eye, a small spot on pronotum behind each eye, a rather narrow longitudinal band on lateral lobes of pronotum, 4 spots on anterior margin of mesonotum, partly hidden by pronotum, pro- and mesotibiae distally and corresponding tarsi, dark brown; mesonotum otherwise orange-brown; abdomen dorsally suffused with red in basal 1/2, dark fuscous distally, ventrally pale yellow; metapleura castaneous. Tegmina with costal cell dark brown, traversed by pale ochraceous veinlets, but wholly ochraceous at stigma; ground color of corium crimson, darkening distally almost to black, veins and veinlets greenish brown, or dull yellow or red, veins of hyaline area yellow or greenish yellow, about 5 irregular pale brown spots or an arcuate suffusion in apical part of tegmen. Wings hyaline, suffused red or fuscous at base, veins dark fuscous. Anal segment of ♂ relatively long, in dorsal view widest near apex, lateral margins straight from base to near apex, apical angles obtuse, almost rounded, moderately produced caudad. Pygofer with dorsolateral angles not at all produced, shallowly rounding. Aedeagus lightly sclerotised basally in a shallow bowl-like form facing caudad, with dorsal surface divided by a deep transverse groove and lower margin strongly produced caudad in a pair of narrow flattened lobes, each rounded apically and lying below membranous part of aedeagus, lobe on right side a little broader than that on left, a stout Y-shaped lobe on left side, with lower limb emitting a short sclerotised lobe dorsally, this lobe denticulate on its distal margin; a similar lobe, but stouter in basal 1/2 and with thicker walls, on right

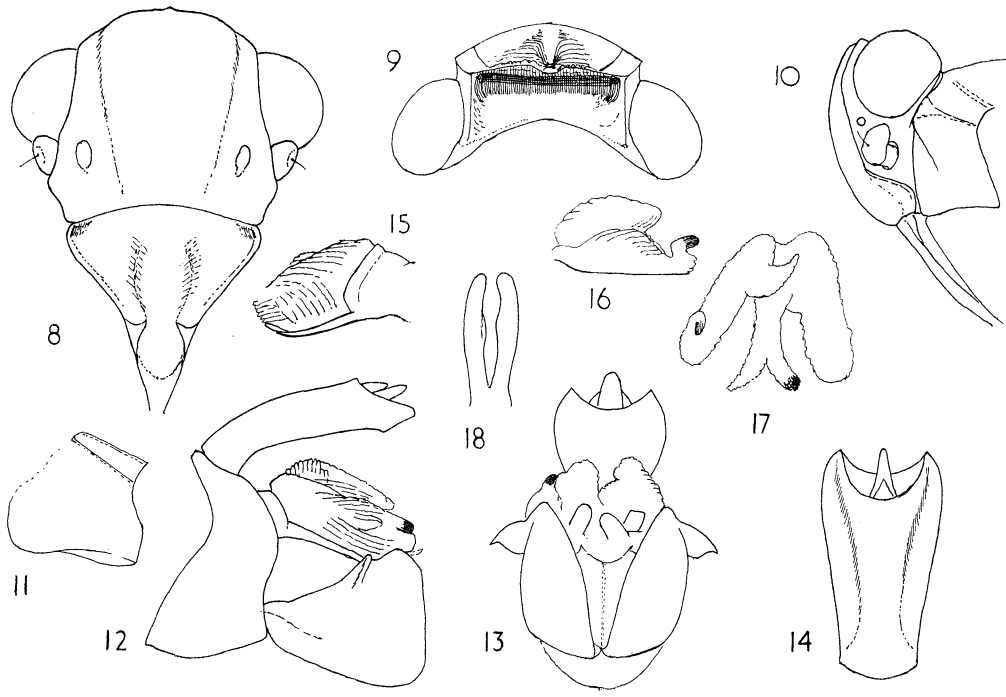

FIG. 8–18. *Birdantis hesperugo*, n. sp., ♂: 8, frons and clypeus; 9, vertex, dorsal; 10, head and pronotum, left side; 11, left lateral lobe of pronotum, with posterior margin at right; 12, ♂ genitalia, left side; 13, ♂ genitalia, posterior; 14, anal segment of ♂, dorsal; 15, aedeagus, right side; 16, left lateral lobe and dorsal lobe of aedeagus, side view; 17, aedeagus with lobes inflated, posterodorsal (semidiagrammatic); 18, sclerotised ventral lobes of aedeagus, ventral.

side, dividing distally into 2 unequal lobes, neither of which is sclerotised; ventrally, a relatively long and narrow median lobe lying almost in middle line and forking distally into 2 short, narrow, diverging lobes of which the outer is sclerotised distally. Genital styles in side view triangular, rather longer than broad at widest part, laterodorsal lobe broadly triangular with lower margin shallowly sinuate and apex acuminate and deflexed.

Length, 16.0 mm, tegmen, 18.3 mm.

Holotype ♂ (BISHOP 10,639), IRIAN: New Guinea (NW): River Tor (mouth), 4 km E of Hol Maffin, 1.VII.1959, T. C. Maa.

This species runs to couplet 12 in Lallemand's key (1959: 193), but differs from the 2 species to which this leads, *B. semihyalina* and *B. delibuta collaris*, by the absence of any marking on the frons and vertex. It also differs from the former by the greater extent of the opaque area of the tegmen, and from the latter in the degree of convergence of the lateral carinae of the frons. The basic structure of the aedeagus is like that of *B. similis* Schmidt, but in *B. similis* the dorsal lobe of the right side, which is bellows-like in part, terminates in a small denticulate or papillate sclerite, and the ventral lobe forks very unequally, its left branch being small whereas the right branch is large, sclerotised and denticulate apically; the left lobe of the aedeagus forks into 2 large lobes, of which the lower terminates in a relatively large horizontally-ribbed sclerite that is denticulate at its apical margin. Of the 2 elongate sclerotised lobes that underlie the membranous part of the aedeagus, that of the right side is much broader than its counterpart on the left.

Birdantis (**Birdantis**) **enyo** Fennah, new species FIG. 19–28

♂. Vertex broader between basal angles than long at sides (2: 1); frons with lateral carinae only weakly converging distad; basal metatarsal segment with a row of 8 teeth on apical margin and a further 2 teeth just basad of middle of this row, 2nd segment with 6 teeth. Tegmina with cells of corium quadrate, longer than broad, not laterally compressed to form a transverse line at level of stigma, 6–9 cells in clavus distad of union of common claval vein and commissural margin. Greenish testaceous or ochraceous; a lenticular spot at base of frons extending on to apex of vertex, a spot behind each eye, a broad spot medially at base of vertex extending on to anterior margin of pronotum, and a broad spot on each side of middle line of pronotum anteriorly, pro- and mesotibiae distally and corresponding tarsi, and metatarsi distally, black; carinae and margins of frons, an oval mark and submarginal bands on clypeus, short stripes or marbling on pleurites, protrochanters, stripes on pro- and mesofemora, a band across tibiae at base and middle (but weak on posttibiae), sordid yellowish brown. Tegmina hyaline except in costal cell, basal 1/4 of corium and basal 2/3 of clavus, a transverse suffusion close to base at level of 1st spot in costal cell, an oblique suffusion from 2nd spot in costal cell to commissural margin near level of union of claval veins, a short band in cell Sc+R linking 3rd and 4th spots in costal cell, a broad band, angulate basad, from apex of costal cell to apex of clavus, and tegmen apically, dark chocolate brown, darker near base. Intervals of costal cell, and a fascia from costa across middle of clavus, ochraceous green, longitudinal veins dark fuscous, transverse veinlets ochraceous, yellowish brown or green. Wings hyaline to base, veins dark fuscous. Abdomen dorsally dark fuscous, each segment narrowly edged orange-yellow posteriorly, ventral surface dull orange-yellow, each segment with about 7–12 small fuscous spots towards each side. Anal segment relatively long, in dorsal view widest near middle, lateral margins strongly sinuate, apical angles acute, strongly produced ventrocaudad. Pygofer with dorsolateral angles obtusely rounding, not produced. Aedeagus comprising a large dorsal lobe, grooved dorsally in middle line in its basal 1/2, which is bellows-like, and forking distally into 2 relatively short stout diverging lobes, not armed at apex; a pair of stout and rather long lobes,

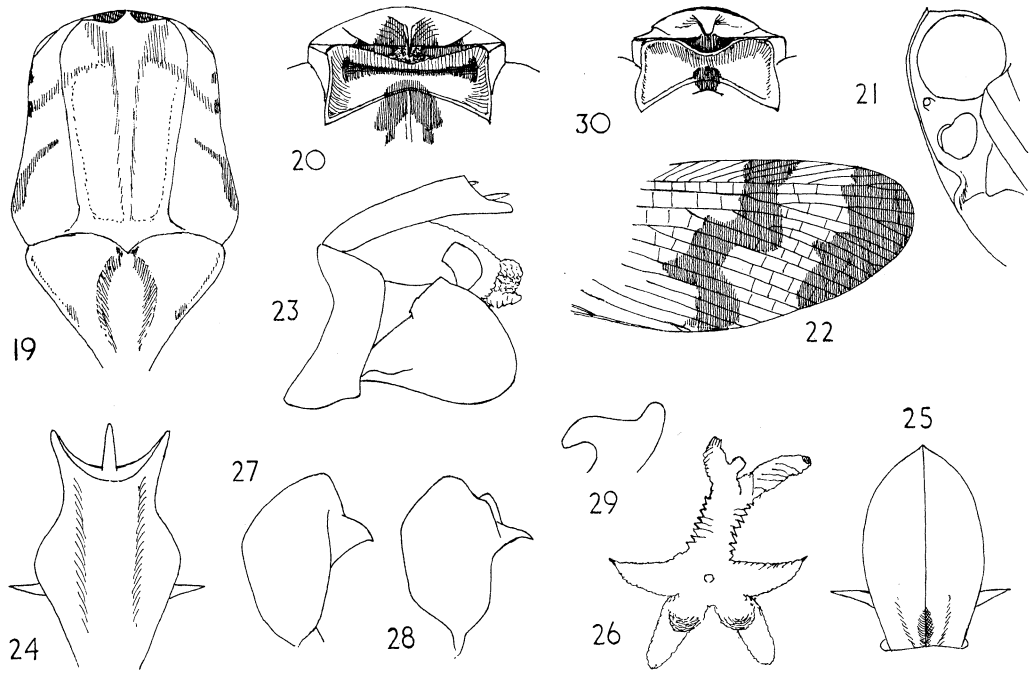

FIG. 19–30. *Birdantis* species. 19–28, *Birdantis enyo*, n. sp., ♂: 19, frons and clypeus; 20, vertex, dorsal; 21, head, left side; 22, apex of tegmen; 23, ♂ genitalia, left side; 24, anal segment of ♂ and dorsolateral processes of genital styles, dorsal; 25, genital styles, ventral; 26, aedeagus, with lobes inflated, posterior (semidiagrammatic); 27, right genital style, posteroventrolateral; 28, right genital style, ventrolateral; 29, ventrolateral lobe of aedeagus. 30, *Birdantis semihyalina* Distant, vertex, dorsal.

tapering distally to a sclerotised apex, arising immediately below this lobe, with right limb apparently more closely associated basally with overlying lobe than is left limb, both limbs curving laterocaudad, genital opening situated between their bases; below these, a pair of short stout lobes (the genital style separators), each consisting of a short limb directed caudad and a curved limb directed ventrad then curving cephalad; a narrow sclerotised ring at base of aedeagus, not at all produced caudad in its basal 1/2. Genital styles in side view slightly longer than broad at widest part, dorsolateral process narrow, tapering, acuminate and slightly deflexed at tip.

Length, 17.5 mm, tegmen, 20.0 mm.

Holotype ♂ (Bishop 10,640), IRIAN: New Guinea (NW): Bodem, Sarmi area, 10. VIII.1959, T. C. Maa; 1 ♂ paratype, Mt Nomo, S of Mt Bougainville, 700 ft (213 m), II.1930, L. E. Cheesman (BMNH).

A male from Wetter, near Timor (W. Doherty), is regarded as a geographical representative of this species.

This species differs from *B. semihyalina* by its larger size, the vertex being relatively broader, the lateral carinae of the frons being subparallel to the median carina, not markedly convergent distad, and the presence of 2 submarginal teeth behind the apical row on the basal segment of the metatarsus. The ochraceous to greenish ground color

of the body contrasts with the yellowish or light orange-brown color in *B. semihyalina;* in the tegmina the dark areas are larger and fuscous, as opposed to reddish brown, and there is an oblique green or ochraceous fascia in the basal quarter, from costal margin to clavus, that is not present in *B. semihyalina.* In the male genitalia, the dorsolateral process of the genital styles, in posterior view, is relatively narrower, and in the anal segment the lateral margins are strongly sinuate and the apical angles are acutely produced laterocaudad.

Genus **Desudaba** Walker

Desudaba Wlk., 1858: 58 (type-species: *Desudaba psittacus* Wlk., 1858: 59).

Desudaba scylla Distant

Desudaba scylla Dist., 1888: 488, pl. XIII, fig. 5.

Material examined. IRIAN: New Guinea (SW): 1 ♀, Eramboe, 10 km ex Merauke, 5.II.1960, T. C. Maa; PNG: New Guinea (SE): 2 ♂♂, 2 ♀♀, Kiunga, Fly River, 4–21. VII.1957, 11–13.VIII.1957, 1–7.X.1957, W. W. Brandt; New Guinea (NE): 1 ♀, Torricelli Mts, Mobitei, 750 m, 28.III–4.II.1959, W. W. Brandt; 1 ♂, Markham Valley, Bubia, 50 m, 19.IX.1955, J. L. Gressitt; 1 ♀, Lae, VII.1944, F. E. Skinner.

This species closely resembles *Desudaba aulica* Stål but is appreciably larger. Schmidt (1930: 116) listed *D. aulica* from New Guinea, and it is possible that he had material of *D. scylla* before him.

Desudaba insularis Schmidt

Desudaba insularis Schmidt, 1911: 247.

Material examined. PNG: New Guinea (SE): 1 ♂, Fly River, Geog. Soc. Exp. (no date); 1 ♂, Brown River, nr Port Moresby, 29.VI.1962, E. Kangiri.

This species differs from *D. scylla* in the coloration of the wings, by the apex of the head, as seen in dorsal view, being obtusely subangulate (as opposed to evenly shallowly convex), by the dorsolateral angles of the pygofer being only moderately produced and bluntly conical (as contrasted with strongly produced in a slender acuminate process), and by the spinose apex of the dorsolateral process of the genital styles being only very narrowly separated from the side of the style (as opposed to markedly separated).

Genus **Saramel** Fennah, new genus

Vertex wider between basal angles than long (1.6–2.0: 1), basal margin broadly concave, lateral margins straight, apical margin of head broadly and evenly convex, cephalic process short, subpyramidal, completely or almost completely overlying middle portion of vertex. Frons a little broader than long in middle line, with basal margin sinuately convex, acute medially, lateral margins sinuate and frontoclypeal suture shallowly concave, median carina absent, lateral carinae feeble, at their point of widest separation 6–8 × farther apart than either is from nearest lateral margin at same level, and about 2 × as far apart as at their apex, disc transversely shallowly convex. Rostrum surpassing posttrochanters but not reaching to apex of abdomen, with apparently only 3 segments distad of labrum. Antennae with 2nd segment subglobose, a little inflated dorsally; ocelli distinct. Pronotum with lateral margin formed by lower of the 2 lateral carinae.

Posttibiae with 5 spines laterally, 6 apically, basal metatarsal segment with 7 teeth, 2nd segment with 6–8 teeth. Tegmina longer than broad (about 3: 1), hyaline portion extending basad as far as branching of 2nd sector of M, claval sutural vein (Cu_2) continuing directly to join commissural margin. Anal segment of ♂ longer than broad (about 2: 1), lateral margins very slightly diverging distad, apical margin rather shallowly concave, apex of segment in side view subrectangulately rounding. Pygofer with dorsolateral angles very little produced, shallowly rounded or very obtusely angulate. Aedeagus with a dorsal lobe, 2 lateral lobes and a ventral lobe, the lateral and ventral lobes furnished apically with 1 or more small pigmented sclerites. Genital styles relatively large, dorsolateral process subquadrate or subtriangular, apical angle not prominent, more or less broadly subangulately rounded.

Type-species: *Saramel caphira* Fennah, n. sp.

Members of this genus are distinguishable by the structure of the head, tegmina and male genitalia. They include the 2 species described below as new and *Bloeteanella toxopeusi* Lallemand. *Saramel* differs from *Bloeteanella* (the contrasting condition shown in brackets) by the lateral margins of the pronotum being formed by the lower of the 2 lateral carinae (upper carina), by the dorsal lobe of the tegula being narrowly rounded in dorsal view (broadly rounded) and by Cu_2 in the tegmen running straight to unite with the commissural margin (Cu_2 prolonged to anal angle of tegmen).

Key to species of *Saramel*

1. Cephalic process not quite attaining posterior margin of vertex, posteriorly with a single vertical carina ..... **caphira,** n. sp.
   Cephalic process attaining posterior margin of vertex, posteriorly with 2 carinae converging apicad, with a depression between them 2
2. Vertex 2 × as broad at hind margin as long at sides; frons distinctly broader than long (1.3: 1) ..... **araxes,** n. sp.
   Vertex distinctly less than 2 × as wide at hind margin as long at sides; frons slightly broader than long (1.1: 1) ..... **toxopeusi,** n. comb.

Saramel caphira Fennah, new species FIG. 31–39

♂. Vertex broader between basal angles than long (1.8: 1), cephalic process with a single vertical carina posteriorly, not quite reaching to posterior margin of vertex; frons with lateral carinae at their point of widest separation 6 × farther apart than either is from nearest lateral margin. Ochraceous; dorsal surface, rostrum and legs much suffused with red; a sprinkling on basal 1/2 of frons, linear marks near margin on frons and clypeus and also submedially on the latter, 2 spots near each side of vertex, a transverse spot across middle of pronotum, marbling on mesonotum, bands on fore and middle legs and postfemora, and a group of spots on abdominal sternites towards sides, fuscous to piceous; abdomen dorsally dull yellow, with segments green at hind margin. Tegmina with corium dull red, with a few obscure darker spots, cell between posterior claval vein and commissural margin translucent, membrane hyaline, with about 16 small fuscous spots; veins red. Wings hyaline to base, veins fuscous. Anal segment longer than broad (1.9: 1). Pygofer with dorsolateral angles ill defined, broadly rounding. Aedeagus with a large dorsal lobe, 2 lateral lobes, each with a subsidiary lobe that terminates in a relatively large, coarsely denticulate sclerotised and pigmented plate, and 2 ventral lobes of which that on the right side bears 2 smaller lobes, 1 with a few minute pigmented granules apically, the other with 2 smaller groups of granules. Genital styles with dorsolateral process relatively long, sinuately tapering, produced apically in a rather long apically decurved spine.

Length, 11.0 mm, tegmen, 14.0 mm.

Holotype ♂, (Bishop 10,641) IRIAN: New Guinea (NW): Swart Val., Karubaka, 1450 m, 16.XI.1958, J. L. Gressitt.

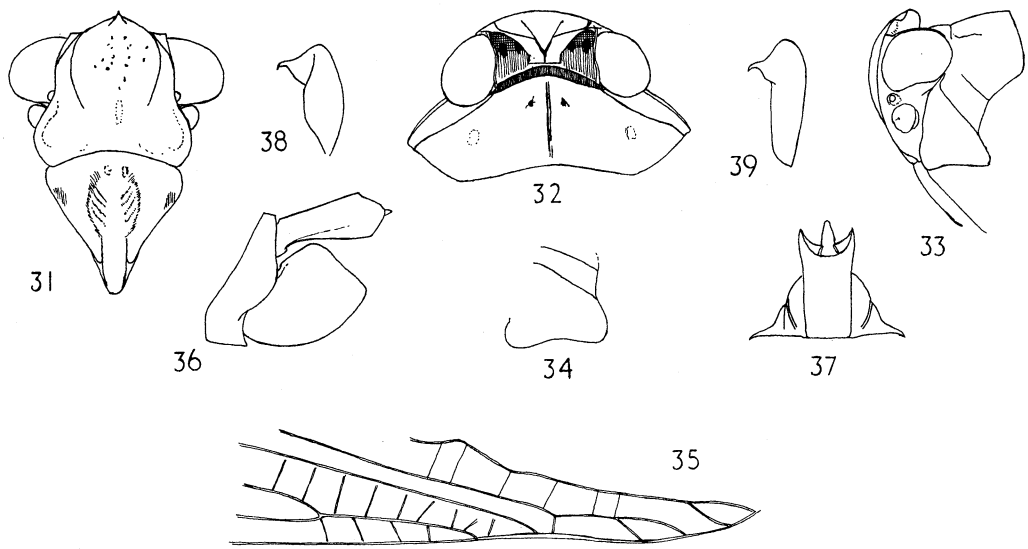

FIG. 31–39. *Saramel caphira*, n. gen., n. sp., ♂: 31, frons and clypeus; 32, vertex, dorsal; 33, head and pronotum, left; 34, left lateral lobe of pronotum, posterior margin at right; 35, posterior portion of tegmen near apex of clavus; 36, ♂ genitalia, left side; 37, anal segment of ♂ and dorsolateral processes of genital styles, dorsal; 38, genital style, posterolateral; 39, genital style, posterior.

Saramel araxes Fennah, new species FIG. 40–47

♂. Vertex broader between basal angles than long (about 2: 1), cephalic process with a triangular depression on posterior surface, reaching to posterior margin of vertex, with sides, as seen from above, not strongly diverging; frons with lateral carinae at point of widest separation 8 × farther apart than either is from nearest lateral margin. Light orange-brown; frons basally, clypeus medially, and tibiae and tarsi slightly darker reddish brown; suffusions on some meso- and metapleurites, postcoxae and bands on legs, reddish fuscous, abdomen ventrally greenish yellow, speckled with black medially and towards lateral margins, and broadly striped with black laterally, dorsal surface orange, with each segment black at anterior margin and green at posterior margin. Tegmina with corium light yellowish brown marbled with reddish brown, about 6 dull ochraceous spots in costal cell, membrane hyaline; veins light reddish brown. Wings hyaline, veins reddish brown. Anal segment longer than broad (2: 1). Pygofer with dorsolateral angles very shallowly rounded. Aedeagus with a large dorsal lobe, 2 lateral lobes, each with a subsidiary lobe that terminates in a small denticulate sclerotised and pigmented plate, and 2 large ventral lobes of which that on the right side bears 2 smaller eminences with small pigmented plates apically. Genital styles with dorsolateral process subquadrate, not, or only minutely, pointed at apex; apical angle not prominent, obtusely rounded.

Length, 12.0 mm, tegmen, 15.0 mm.

Holotype ♂ (BISHOP 10,642), IRIAN: New Guinea (NW): Wisselmeren, Enarotadi, 1900 m, 21.VIII.1955, J. L. Gressitt; 1 ♂ paratype, same data as holotype (BISHOP).

Saramel toxopeusi (Lallemand), new combination

Bloeteanella toxopeusi Lall., 1959: 189.

♂♀. Vertex broader at basal margin than long at sides (1.6–1.8: 1), cephalic process attaining posterior margin of vertex, with sides, as seen from above, strongly divergent; 2 carinae posteriorly, converging to meet

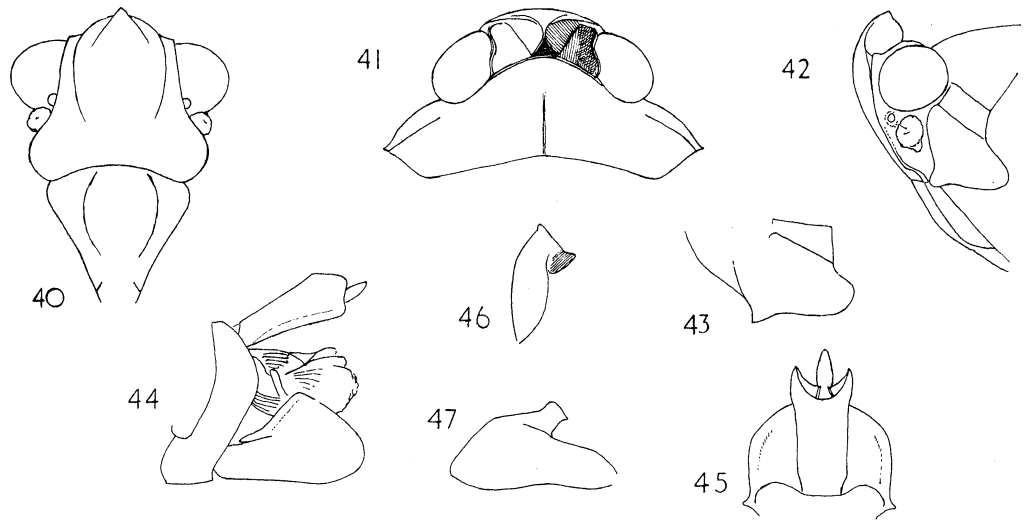

FIG. 40–47. *Saramel araxes*, n. sp., ♂: 40, frons and clypeus; 41, vertex and pronotum, dorsal; 42, head and pronotum, left; 43, left lateral lobe of pronotum, posterior margin at right; 44, ♂ genitalia, left; 45, anal segment of ♂, posterior margin of pygofer and dorsolateral processes of genital styles, dorsal; 46, right genital style, posterior; 47, right genital style, ventrolateral.

at apex and enclosing a triangular depression between them. Frons slightly broader than long in middle (1.1: 1).

Lectotype ♂ (Leiden Museum), IRIAN: New Guinea (NW): Mist Camp, 1800 m, 14.I.1939, L. J. Toxopeus.

OTHER MATERIAL: PNG: New Guinea (NE): 4 ♀♀, Feramin, 120–150 m, 15–18. VI.1959, W. W. Brandt.

The extent of black pigmentation is very variable, and the contrasts are most obvious on the middle of the frons, which may be wholly black, more or less densely sprinkled with irregularly-shaped black spots, or wholly pale yellowish brown or ochraceous.

GENUS **Nisax** Fennah, new genus

Vertex broader between basal angles than long (about 1.2: 1), basal margin shallowly angulately concave; lateral margins straight or very weakly sinuate; apical margin of vertex obscured medially by cephalic process, apical margin of head rather interruptedly convex, cephalic process scarcely projecting above level of lateral margins of vertex, curving abruptly from frons on to disc of vertex where it fills middle portion with an ovate granular mass. Frons slightly longer in middle line than broad, with basal margin convex, lateral margins sinuate and apical margin very shallowly sinuately concave, median carina present throughout, lateral carinae distinct, at their point of widest separation about 3.5 × farther apart than either is from nearest lateral margin at same level, and about 1.3 × as far apart as at apex, disc transversely almost flat. Rostrum with apparent 3 segments distad of labrum, surpassing posttrochanters but not reaching apex of abdomen. Antennae with 2nd segment subglobose but a little inflated, basal segment collar-like; ocelli distinct. Pronotum with lateral margin formed by lower lateral carina. Posttibiae with 6 spines laterally and 6 apically, basal metatarsal segment with about 9 teeth, with 1 or 2 of them slightly basad of the others, and with a narrow pad of setae in distal 1/2, 2nd segment with 5 or 6 teeth apically, with a slightly larger

setose pad. Tegmina longer than broad (about 3.1 : 1), hyaline portion not clearly separated from pigmented portion, extending basad at least to level of junction of common claval vein with margin; vein Cu_2 prolonged distally as far as anal angle of tegmen.

Type-species: *Nisax amisena* Fennah, n. sp.

The shape of the cephalic process and the spacing of the carinae of the frons are approximately as in *Desudaba*, but the margins of the frons and clypeus are more flaring. The tegminal venation is less regular than in *Desudaba*, and the 2 dark round spots in the membrane that appear to be invariably present in *Desudaba* are lacking in *Nisax*. From *Galela* Distant 1906, *Nisax* is separated by the proportions and shape of the frons, the hollowed vertex, the globose 2nd antennal segment, the shape of the lateral pronotal lobes, the more extensive branching of the principal veins and the structure of the hind tarsi and the pregenital sternite. Its affinities are with *Erilla* Distant, 1906, from which it is separable by the more flaring sides of the frons and clypeus, the concave profile of the head, the ovate eye, the shorter upper lateral pronotal carina and the texture and venation of the tegmina.

Nisax amisena Fennah, new species FIG. 48–53

♀. Vertex broader between basal angles than long (1.2: 1); frons in middle line very slightly longer than broad, intermediate carinae at their point of widest separation 3.5 × farther apart than either is from

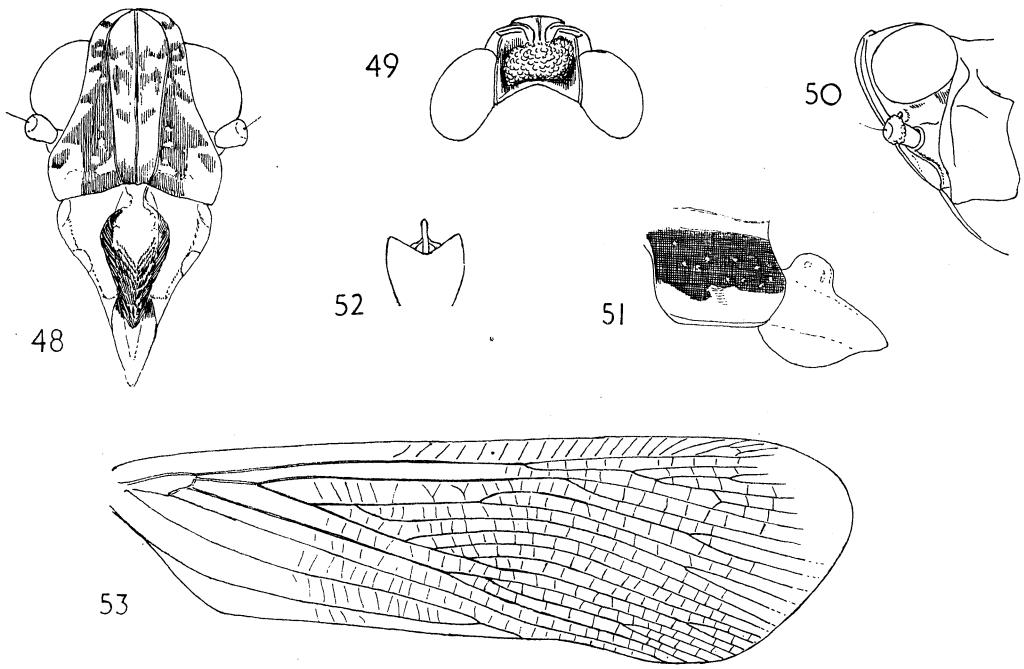

FIG. 48–53. *Nisax amisena*, n. gen., n. sp., ♀: 48, frons and clypeus; 49, vertex, dorsal; 50, head and pronotum, left side; 51, left lateral lobe of pronotum, posterior margin at right, and mesepisternum; 52, anal segment of ♀; 53, tegmen.

nearest lateral margin at same level, and 1.3 × as far apart as at apex. Greenish ochraceous, sprinkled and suffused with red; intercarinal areas of frons, except for some round spots and oblique stripes in lateral fields, clypeus, except interruptedly at margins, upper portion of lateral fields of pronotum except for about 10 small round spots, mesonotum anteriorly and 2 spots on disc sublaterally, tegula, banding on legs, and lower surface of body in greater part, dark fuscous or piceous, abdominal sternites otherwise dark yellowish brown; tergites dark orange-brown with much fuscous suffusion. Tegmina subtranslucent, corium suffused dull green and finely speckled with red; 3 rather large spots and several small spots in costal cell, 2 oblique suffusions across corium at about basal 1/3 and distal 1/3 of clavus, and a suffusion overlying union of common claval vein with margin, 2 irregular bands, an ocellate spot and some smaller spots in membrane, fuscous; veins ochraceous with some red suffusion, especially in membrane. Wings hyaline to base, veins fuscous. Anal segment short, only gradually expanding distad, apical margin shallowly concave, apical angles acutely rounded, but not very prominent.

Length, 13.5 mm, tegmen, 16.0 mm.

Holotype ♀ (BISHOP 10,643), PNG: New Guinea (SE): Woodlark I (Murua), Kualumdau Hill, 25.II.1957, W. W. Brandt.

GENUS **Ulasia** Stål

Ulasia Stål, 1863: 578 (type-species: *Ulasia saundersi* Stål, 1863: 579).

Cephalic process laterally compressed, erect, more or less slender. Tegmina with clavus apically closed by a very short callussed veinlet. Pygofer with lateral margin produced caudad at middle in a rather small rounded lobe; a 2nd lobe arising submarginally a little below this and extending laterocaudad, concave on its posterior surface.

KEY TO SPECIES OF *Ulasia*[3]

1. Anteclypeus in profile distinctly angulate (Aru) ..... **saundersi**
   Anteclypeus in profile not angulate 2
2. Posterior margin of cephalic process in side view markedly concave; a pair of elevated lobes just behind anterior margin of pronotum near its middle (New Guinea) ..... **sophene,** n. sp.
   Posterior margin of cephalic process not or scarcely concave; pronotum without elevated lobes... 3
3. Cephalic process in side view at least 6 × as long as broad at middle 4
   Cephalic process relatively shorter 7
4. Cephalic process less than 7 × as long as broad 6
   Cephalic process more than 7 × as long as broad 5
5. Wings orange at base (Misool) ..... **magica**
   Wings dilute milky white at base (Roon) ..... **procera**
6. Vertex as broad as long; ♂ with cephalic process less than 6.3 × longer than broad (New Guinea) ..... **carnion,** n. sp.
   Vertex longer than broad; ♂ with cephalic process more than 6.3 × longer than broad (Normanby I) ..... **maiuma,** n. sp.
7. Cephalic process more than 5 × as long as broad at middle 8
   Cephalic process less than 5 × as long as broad at middle 9
8. Hind tarsi with a distinct pad of setae on basal and 2nd segments (New Guinea) ..... **nicophron,** n. sp.
   Hind tarsi without a distinct pad of setae on basal and 2nd segments (New Guinea) ..... **theano,** n. sp.
9. Hind tarsi with a distinct pad of setae on basal and 2nd segments (New Guinea) ..... **cynaxa,** n. sp.
   Hind tarsi without a distinct pad of setae on basal and 2nd segments 10
10. Wings pearly gray basally; abdomen dorsally yellow (New Guinea) ..... **tondota,** n. sp.
    Wings orange-yellow basally; abdomen red, with black spots dorsally (New Guinea)... **damnorix,** n. sp.

3. *Ulasia grothi* Schmidt is not included.

Ulasia saundersi Stål FIG. 54, 55

Ulasia saundersi Stål, 1863: 579.

♀. Anteclypeus angulate in profile. Hind tarsi with only a lax pad of fine setae on basal and 2nd segments. Wings with a small orange area at base.

This species as now defined is known only from Aru I, and is represented in the BMNH by the type and a 2nd female.

The material from New Guinea assigned to *U. saundersi* by Distant is regarded as a distinct species and is discussed below.

Ulasia magica Stål FIG. 56–58

Ulasia magica Stål, 1863: 579.

♀. Hind tarsi with a pad of setae on basal and metatarsal segments.

This species is represented in the BMNH only by the female type, and appears to be restricted to Misool.

Ulasia procera Schmidt, resurrected from synonymy

Ulasia procera Schmidt, 1911: 245.
Ulasia magica procera Lallemand, 1959: 192.

Lallemand regarded this species (from Roon I) as a "form" of *U. magica*. The difference between the 2 in the color of the base of the wings, however, supports the view that this is a distinct species, and until evidence to the contrary is forthcoming I prefer to regard it as such.

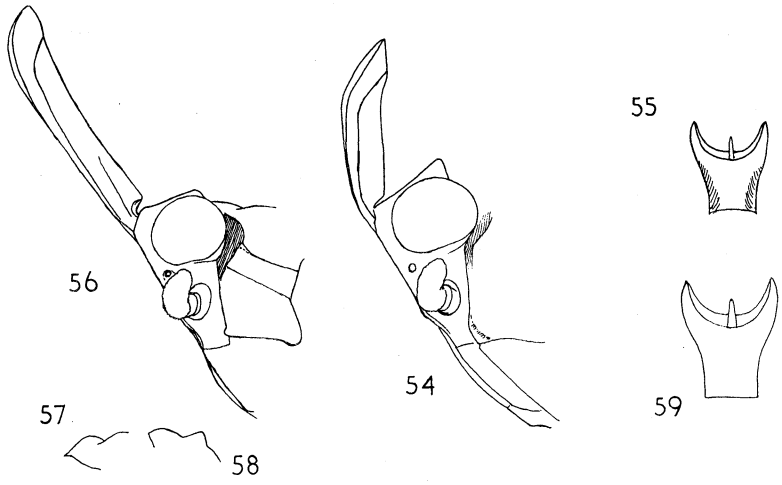

FIG. 54–59, *Ulasia* species. 54–55, *Ulasia saundersi* Stål: 54, head (of ♀ type), left side; 55, anal segment of ♀. 56–58, *Ulasia magica* Distant, ♀: 56, head and pronotum (of type), left side; 57, dorsolateral process of left genital style, posterolateral view; 58, dorsolateral process and apical angle of genital style, left side. 59, *Ulasia damnorix*, n. sp.: anal segment of ♀, dorsal.

Ulasia grothi Schmidt

Ulasia grothi Schmidt, 1928: 126.

This species is probably confined to the Kei Islands. It differs from all New Guinean species by having wings with the basal area green and the apical area infuscate. The cephalic process, given as 3 × as long as broad at middle, is relatively shorter than that of any other species.

Ulasia sophene Fennah, new species FIG. 60–65

♀. Vertex longer than broad at anterior margin (about 1.4: 1); cephalic process longer than broad at middle (about 3.5: 1), in side view strongly curved, projecting anteriorly to profile of frons, as wide at widest part almost as 2/3 length of eye, lateral carina diverging from anterior margin throughout; sides of head above eyes produced dorsad to a distance equal to apparent basal length, acutely angulate; anteclypeus in profile shallowly convex, not angulate. Pronotum with a pair of lobes near anterior margin, directed dorsomesad, the area between them depressed; hind tarsi without a pad of dense setae on the basal and 2nd segments. Tegmina at widest part at level of claval apex, with about 19 rows of cells posterior to Sc (stigmal cells); a distinct transverse line of 2 irregular rows of cells from Sc + R fork to Cu. Pale greenish orange-brown; frons, except for cephalic process, 4 areas adjoining frontoclypeal suture, and 5 or 6 small round spots outside submedian carinae, postclypeus basally, distally, in an ovate line and a median chevron-patterned spot, 3 bands on pro- and mesofemora, 2 on postfemora, 4 bands on every tibia, and groups of small spots on abdominal sternites, medium to dark fuscous; abdomen dorsally pale greenish yellow, sparsely and finely sprinkled with red.

Length, 17.0 mm, tegmen, 16.5 mm.

Holotype ♀ (BISHOP 10,644), PNG: New Guinea (SE): Kiunga, Fly River, 26–28.X. 1957, W. W. Brandt.

This species is distinguishable by the shape of the cephalic process, the presence of paired processes on the pronotum, and the lesser number of rows of veins in the distal part of the tegmen. The type specimen is rather teneral, and it is possible that the coloration, apart from the fuscous markings, is not fully developed.

Ulasia carnion Fennah, new species FIG. 66–69

♀. Vertex as long as broad at anterior margin; cephalic process in profile straight, very slightly widening distad, longer than broad at middle (6.1: 1), width at its widest part 1/2 length of eye, lateral carina close to anterior margin and only very weakly diverging from it, except in apical fifth; sides of head not much elevated above eyes; anteclypeus in profile shallowly convex. Pronotum devoid of elevated lobes; hind tarsi without a pad of dense setae on basal and 2nd segments in distal 1/2. Tegmina at level of claval apex with about 19 rows of cells between Sc and hind margin, a distinct transverse line of 2–3 irregular rows of veinlets from Sc + R fork to M_4. Fuscous; suffused with green on cephalic process, pronotum and legs; mesonotum reddish brown, pleura and abdomen ventrally dark tawny yellow suffused with dark castaneous; abdomen dorsally pale orange; genitalia almost black. Tegmina with corium dull dark brownish red, veins light brown, about 4 small ochraceous green suffusions on costal margin, membrane fuscous, with light brown veins. Wings hyaline, broadly opaque and pale orange in basal 1/2, veins fuscous.

Length, 15.0 mm, tegmen, 15.0 mm.

Holotype ♀ (BISHOP 10,645), IRIAN: New Guinea (NW): Waris, S of Hollandia, 450–500 m, 24–31.VIII.1959, T. C. Maa.

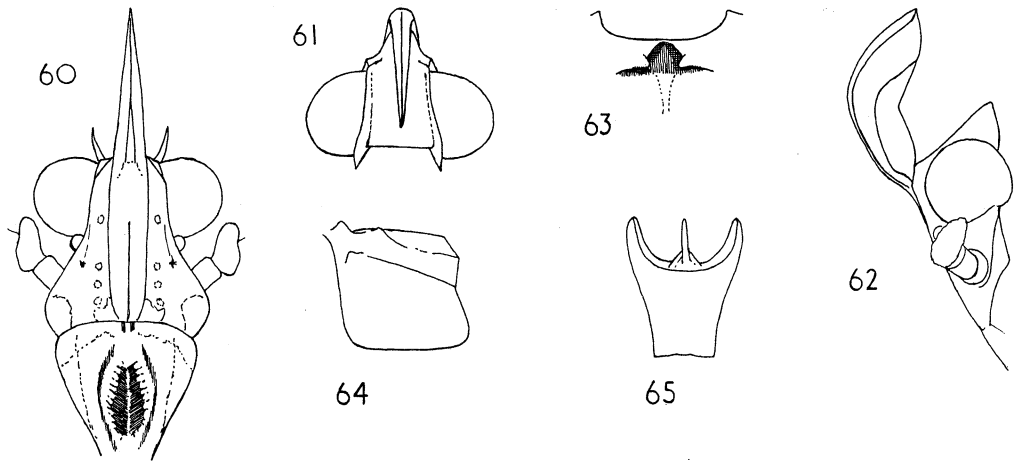

FIG. 60–65. *Ulasia sophene*, n. sp., ♀: 60, frons and clypeus; 61, vertex, dorsal; 62, head, left side; 63, anteromedian area of pronotum; 64, left lateral lobe of pronotum, posterior margin at right; 65, anal segment of ♀.

The ventral surface of the abdomen is heavily speckled with fuscous in the dark tawny areas, and this feature serves to distinguish this species from the sympatric species described later in this report.

Ulasia maiuma Fennah, new species FIG. 70–72

♂♀. Vertex longer than broad at anterior margin (about 1.3: 1), cephalic process in profile straight (♂) or slightly curved in distal 1/2 (♀), longer than broad at middle (at least 6.1: 1), width at widest part 2/5 length of eye; lateral carina gradually diverging distad from anterior margin except in apical quarter, sides

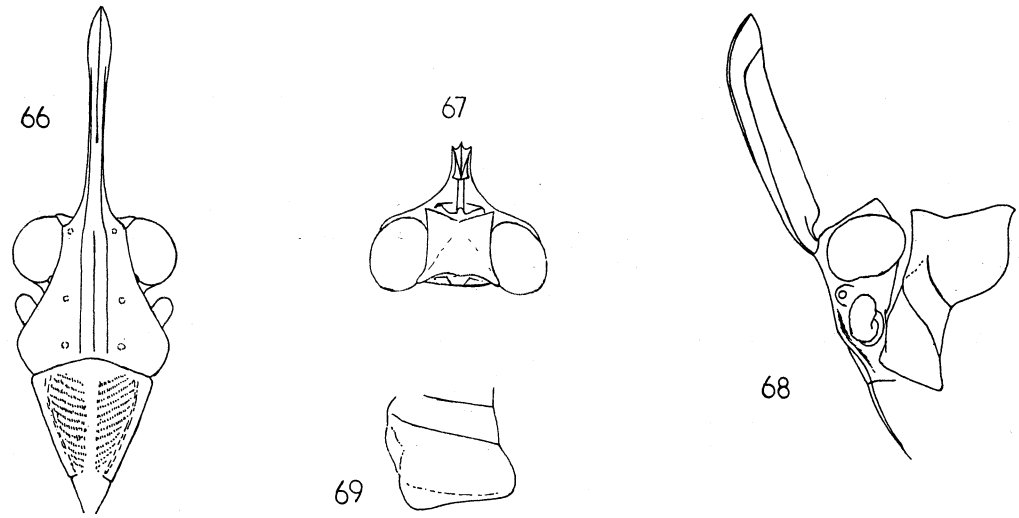

FIG. 66–69. *Ulasia carnion*, n. sp., ♀: 66, frons and clypeus; 67, vertex, dorsal; 68, head and pronotum, left side; 69, left lateral lobe of pronotum, posterior margin at right.

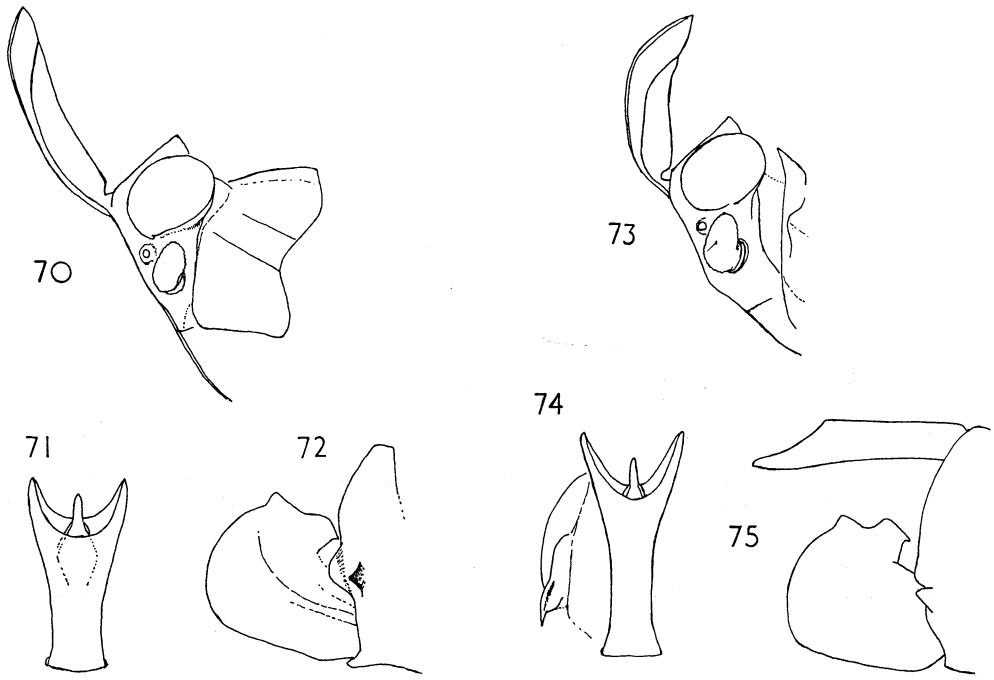

FIG. 70–75, *Ulasia* species. 70–72, *Ulasia maiuma*, n. sp.: 70, head and pronotum, left side; 71, anal segment of ♂, dorsal; 72, genital style and pygofer, right side. 73–75, *Ulasia tondota*, n. sp., ♂: 73, head, left side; 74, anal segment of ♂ and dorsolateral process of right genital style, dorsal; 75, ♂ genitalia (excluding aedeagus), right side.

of head above eyes not much elevated; anteclypeus in profile shallowly convex. Pronotum devoid of elevated lobes. Hind tarsi without a pad of dense setae on the basal and 2nd segments distally. Tegmina at level of claval apex with about 19 rows of cells between Sc and hind margin, a distinct transverse line of 2–3 rows of veinlets from Sc + R fork to M_4. Light reddish brown; head, pronotum and legs finely and sparsely sprinkled with red, abdomen ventrally red, dorsally with tergites black in anterior 2/3, elsewhere red. Tegmina light reddish brown, membrane infuscate, veins and veinlets light yellowish brown. Wings hyaline, dilute pale orange in basal 1/3.

♂. Anal segment longer than broad at apex (2.1: 1). Pygofer with lateral lobe broad, not very prominent, thick, slightly concave on posterior surface. Aedeagus with pigmented part of dorsal margin of left sclerotised lobe forming a short and rather broad tooth. Genital styles with dorsal process broad, its lower margin convex, apical angle produced, acutely rounding.

Length: ♂, 13.5 mm, tegmen, 15.0 mm; ♀, 16.0 mm, tegmen, 16.5 mm.

Holotype ♂ (BISHOP 10,646), PNG: New Guinea (SE): Normanby I, Wakaiuna, Sewa Bay, 1–10.XII.1956, W. W. Brandt; 1 ♀ paratype, same data as holotype (BISHOP).

This species is distinguishable from the preceding by the proportions of the vertex and the immaculate and differently colored ventral surface of the abdomen, and from other species by the proportions of the cephalic process.

Ulasia nicophron Fennah, new species FIG. 76–79

♂. Vertex longer than broad at anterior margin (about 1.2: 1); cephalic process in profile only very

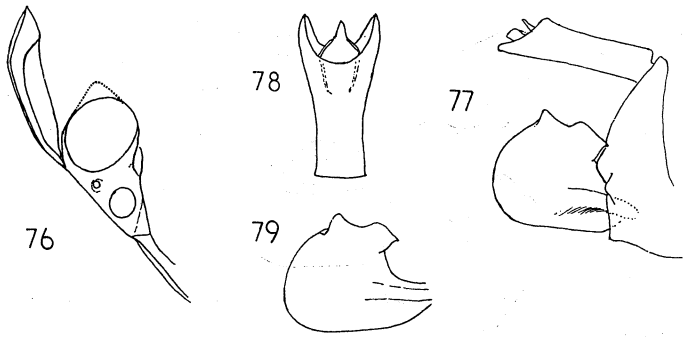

FIG. 76–79. *Ulasia nicophron*, n. sp., ♂: 76, head, left side; 77, ♂ genitalia, (excluding aedeagus), right side; 78, anal segment of ♂, dorsal; 79, right genital style, in slightly ventrolateral view.

shallowly curved, longer than broad at middle (5: 1), width at its widest part about 1/2 length of eye, lateral carina only very feebly diverging from anterior margin in its basal 3/4, sides of head above eyes not much elevated; anteclypeus in profile shallowly convex. Pronotum devoid of elevated lobes. Hind tarsi with a pad of dense setae on the basal and 2nd segments in their distal 1/2. Tegmina at level of claval apex with about 18 rows of cells between Sc and hind margin, a distinct transverse line of 2 irregular rows of veinlets from Sc + R fork to M_4. Light reddish brown; head, thorax dorsally and legs finely and sparsely sprinkled with red; vertex in middle line, mesal end of lateral pronotal carina, pro- and mesocoxae interruptedly, pro- and meso-femora distally, 22–26 round spots on each abdominal sternite and male genitalia, fuscous; a round suffusion on pronotum on each side of middle line, and a larger intercarinal suffusion on mesonotum, olive-brown; abdomen dorsally orange-red with 6 black spots. Tegmina dull yellowish brown, with veins and veinlets ochraceous sprinkled with red; some oblique bands in membrane, fuscous. Wings hyaline, sordid white close to base, veins fuscous. Anal segment longer than broad at apex (1.9: 1). Pygofer with lateral lobe thick, rather broadly rounded, and slightly hollowed on posterior surface. Aedeagus with pigmented part of dorsal margin of left sclerotised lobe slightly irregular and without a distinct tooth. Genital styles with dorsolateral process broad, its lower margin almost straight, apical angle distinctly produced, rectangulately rounded.

Length, 11.2 mm, tegmen, 13.0 mm.

Holotype ♂ (BISHOP 10,647), PNG: New Guinea (NE): Lae, VII.1944, F. E. Skinner.

Ulasia theano Fennah, new species FIG. 80–89

♂. Vertex longer than broad at anterior margin (nearly 1.2: 1); cephalic process in profile straight in basal 3/4, weakly curved in apical 1/4, longer than broad at middle (5.5: 1), width at its widest part 2/5 length of eye, lateral carina only weakly diverging from anterior margin in basal 3/4; sides of head above eyes not strongly elevated, anteclypeus in profile shallowly convex. Pronotum devoid of elevated lobes. Hind tarsi without a pad of dense setae on the basal and 2nd segments distally. Tegmina at level of claval apex with about 18 rows of cells between Sc and hind margin, a distinct transverse line of 2 rows of veinlets, sometimes confluent, from Sc + R fork to M_4. Dark brown, alternating or suffused with dark green; meso- and meta-thorax dark brown; hind femora suffused with red distally; abdomen red, with 3 pairs of black spots dorsally; genitalia dark fuscous. Tegmina with corium dark reddish brown suffused with green; veins and pustules fuscous or green, an ochraceous spot in M just basad of transverse line, membrane fuscous, longitudinal veins lighter brown and transverse veinlets mostly green. Wings hyaline, broadly pale orange-yellow in basal 1/2, veins fuscous. Anal segment longer than broad at apex (1.7: 1). Pygofer with lateral lobe rather small and acute, hollowed on posterior surface. Aedeagus with pigmented part of dorsal margin of left sclerotised lobe straight, terminating in a minute and not well-defined tooth. Genital styles with dorsolateral process broad, its lower margin almost straight, apical angle distinctly produced, acutely rounded.

Length, 13.5 mm, tegmen, 14.0 mm.

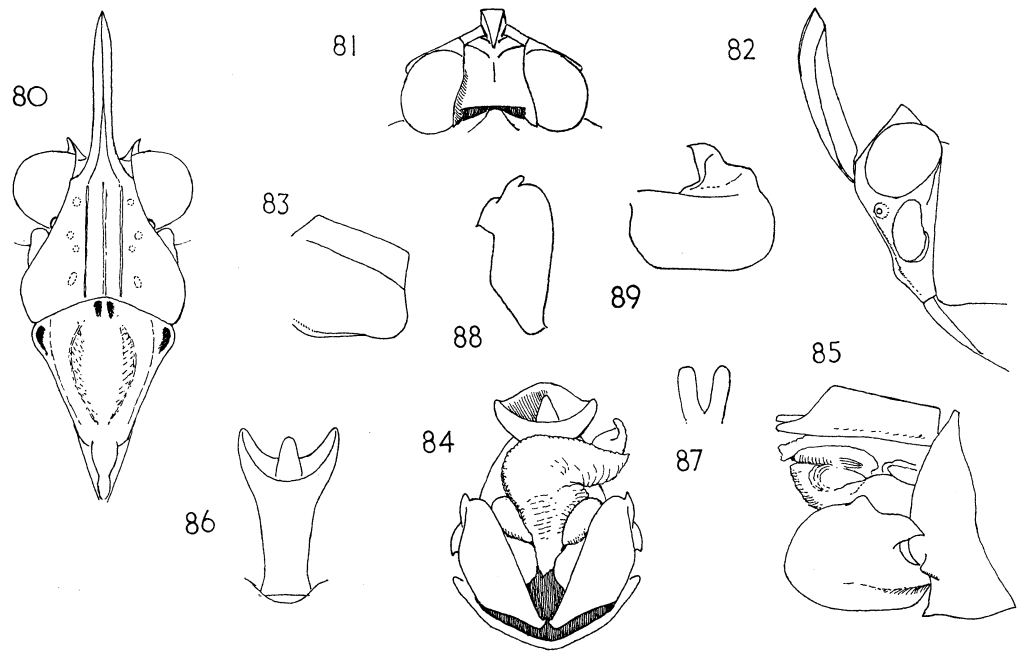

FIG. 80–89. *Ulasia theano*, n. sp., ♂: 80, frons and clypeus; 81, vertex, dorsal; 82, head, left side; 83, left lateral lobe of pronotum, posterior margin at right; 84, ♂ genitalia, with aedeagus inflated, posterior; 85, ♂ genitalia, right side; 86, anal segment of ♂, dorsal; 87, sclerotised ventral lobes of aedeagus, ventral; 88, left genital style, posterior; 89, left genital style, side.

Holotype ♂ (BISHOP 10,648), IRIAN: New Guinea (NW): Waris, S of Hollandia, 450–500 m, 24–31.VIII.1959, T. C. Maa.

This species differs strongly from the preceding in its darker dorsal coloration, notably in the corium of the tegmina, and in the presence there of a conspicuous ochraceous spot. The lower surface of the abdomen is entirely devoid of the fuscous spots found in *U. carnion*.

Ulasia cynaxa Fennah, new species FIG. 90–95

♂. Vertex longer than broad at anterior margin (about 1.2: 1); cephalic process in profile feebly curved, only slightly projecting before frons, longer than broad at middle (about 4.3: 1), width at widest part less than 1/2 length of eye, sides of head above eyes subrectangulately produced dorsad, anteclypeus in profile distinctly convex, but not angulate. Pronotum devoid of elevated lobes. Tegmina opaque in basal 2/3, hyaline in distal 1/3, secondary veinlets very dense and irregularly reticulate in basal 2/3, more regular in distal 1/3; about 19 rows of cells posterior to Sc at widest part of tegmen, an obscure transverse line of crowded cells from stigma to Cu_1. Basal and 2nd segments of hind tarsus each with a setose pad. Reddish brown, finely and rather sparsely sprinkled with red; a spot on each side of pronotum near eye, rostrum apically, pro- and mesotarsi and genitalia, fuscous; abdomen dorsally fuscous, with segments greenish ochraceous at hind margin. Tegmina fuscous, veins in corium pale brownish ochraceous sprinkled with red and giving a general reddish brown hue to the corium. Wings hyaline, greenish white basally; veins fuscous. Anal segment of male longer than broad at apex (2: 1), with lateral margins very shallowly concave, diverging distad. Pygofer with lateral lobe thick, rather broadly rounded and slightly hollowed on posterior

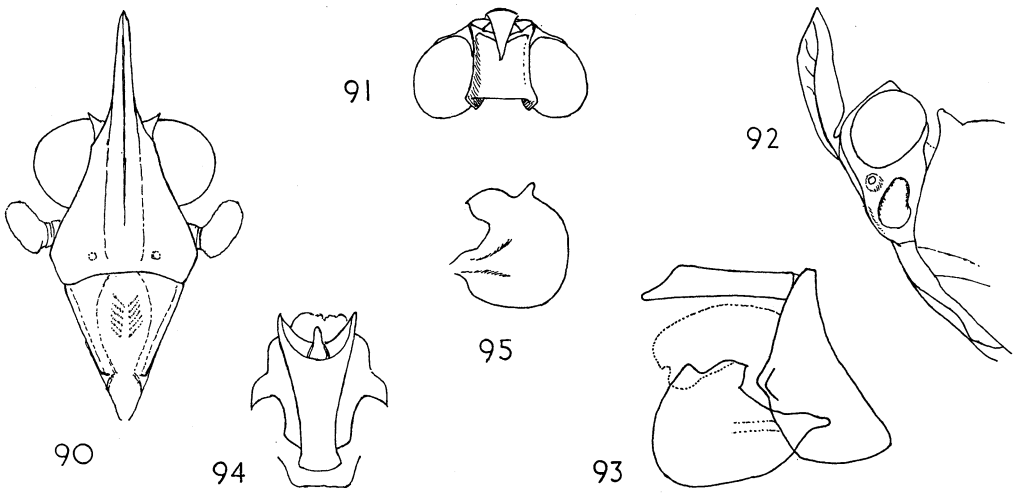

FIG. 90–95. *Ulasia cynaxa*, n. sp., ♂: 90, frons and clypeus; 91, vertex, dorsal; 92, head, left side; 93, ♂ genitalia, right side; 94, anal segment of ♂ and dorsolateral processes of genital styles, dorsal; 95, left genital style, posterolateral.

surface. Aedeagus with pigmented part of dorsal margin of left sclerotised lobe with a minute tooth. Genital styles with dorsolateral process broad, with both margins convex and a small decurved spine apically, apical angle narrowly rounded.

Length, 13.5 mm, tegmen, 13.5 mm.

Holotype ♂ (BMNH), IRIAN: New Guinea (NW): Njau-limon, S of Mt Bougainville, 300 ft (91.4 m), II.1936, L. E. Cheesman.

This species is distinguishable by the relatively short cephalic process, the exceptionally dense reticulation of the veinlets in the corium and clavus of the tegmen, and the presence of a distinct setose pad on each of the basal 2 segments of the hind tarsus.

Ulasia tondota Fennah, new species FIG. 73–75

♂. Vertex scarcely longer than broad at anterior margin (less than 1.1: 1), cephalic process in profile distinctly curved, longer than broad at middle (4.2: 1), width at its widest part 1/2 length of eye; lateral carina markedly diverging from anterior margin except in basal 1/5, sides of head above eyes not much elevated, anteclypeus in profile moderately convex. Pronotum devoid of elevated lobes. Hind tarsi without a pad of dense setae on the basal and 2nd segments distally. Tegmina at level of claval apex with about 17 rows of cells between Sc and hind margin, a distinct transverse line of 1 or 2 irregular rows of veinlets from Sc + R fork to M_4. Light reddish brown; head, thorax and legs finely and sparsely sprinkled with red; vertex, except for 2 oval spots, frons, except near margins, clypeus, pleurites and coxae, legs, except for 3 bands on femora and tibiae of fore and middle legs, tarsi and genitalia, dark reddish brown; a suffusion on each side of middle line of pro- and mesonotum, and small irregular markings in lateral fields of each, fuscous; sparse speckling on frons and pronotum, pale yellowish brown. Abdomen light orange-yellow, dorsally with 3 pairs of black spots. Tegmina with corium dull rust-brown, heavily mottled and suffused fuscous; membrane hyaline, with round fuscous spots, sometimes confluent, except in its anterobasal area; veins pale reddish brown, in membrane finely edged with fuscous. Wings hyaline, dilute grayish white in basal 1/2, veins fuscous. Anal segment longer than broad at apex (2.1: 1). Pygofer with lateral lobe thick, rather narrowly rounded, with posterior surface almost flat. Aedeagus with pigmented

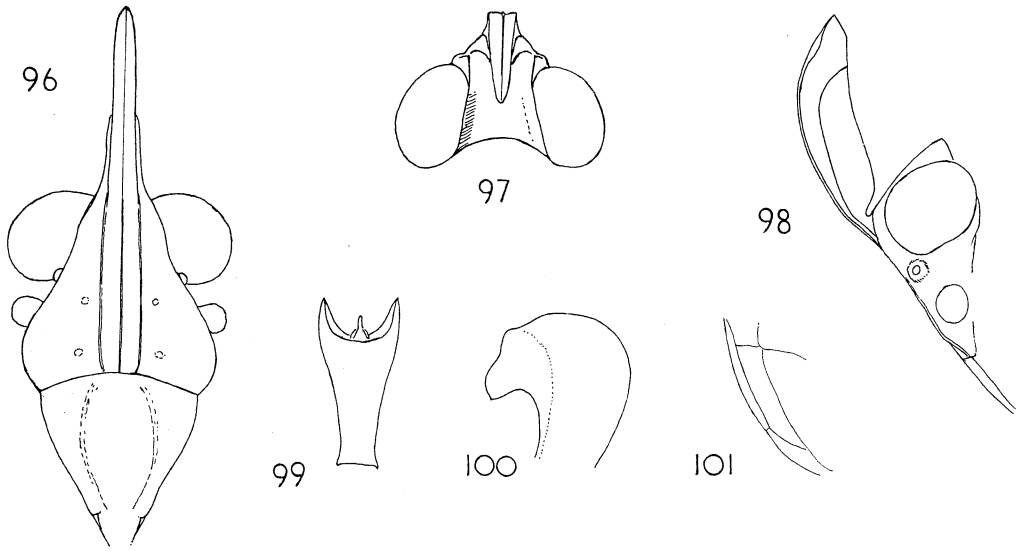

FIG. 96–101. *Ulasia damnorix*, n. sp.: 96, frons and clypeus; 97, vertex, dorsal; 98, head, left side; 99, anal segment of ♂, dorsal; 100, left genital style, posterolateral; 101, anteclypeus, left.

part of dorsal margin of left sclerotised lobe produced in a short stout tooth. Genital styles with dorsolateral process broad, almost quadrate, its lower margin very shallowly convex, apical angle distinctly produced, acutely rounded and slightly inflected mesad.

Length, 13.0 mm, tegmen, 14.5 mm.

Holotype ♂ (BISHOP 10,649), PNG: New Guinea (SE): Kiunga, Fly River, 9–14.X.1957, W. W. Brandt.

This species is distinguishable by the shape of the cephalic process and the proportions of the vertex. Superficially, it is rather like *U. cynaxa*, but differs in not having a pad of dense setae on the basal and 2nd segments of the hind tarsi.

Ulasia damnorix Fennah, new species FIG. 96–101

♂♀. Vertex longer than broad at anterior margin (about 1.5: 1); cephalic process in profile shallowly curved, longer than broad at middle (4: 1), width at its widest part rather more than 1/2 length of eye; lateral carina markedly diverging from anterior margin, except in basal 1/5; sides of head above eyes not much elevated; anteclypeus in profile shallowly convex. Pronotum devoid of elevated lobes. Hind tarsi without a pad of dense setae on the basal and 2nd segments distally. Tegmina at level of claval apex with about 18 rows of cells between Sc and hind margin, a distinct line of 2–4 irregular rows of veinlets from Sc + R to Cu_1. Abdomen red, with sternites in anterior 1/3 and 6 or 8 quadrate spots dorsally, black. Tegmina with corium yellowish brown sprinkled with fuscous spots of different sizes, membrane fuscous, with diffuse bands and spots darker fuscous; veins slightly paler than ground colour, distinctly so in membrane; a weak pink-ochraceous spot in M near transverse line. Wings hyaline, orange-yellow in basal 1/3, veins fuscous.

♂. Anal segment of male longer than broad at widest part (2: 1). Pygofer with lateral lobe thick, broadly triangular, slightly hollowed on posterior surface. Aedeagus with pigmented part of dorsal margin of left sclerotised lobe produced in a stout tooth. Genital styles with dorsolateral process broad, its lower margin shallowly convex, apical angle only weakly produced, slightly obtusely rounded.

Length, 14.5 mm, tegmen, 16.0 mm.

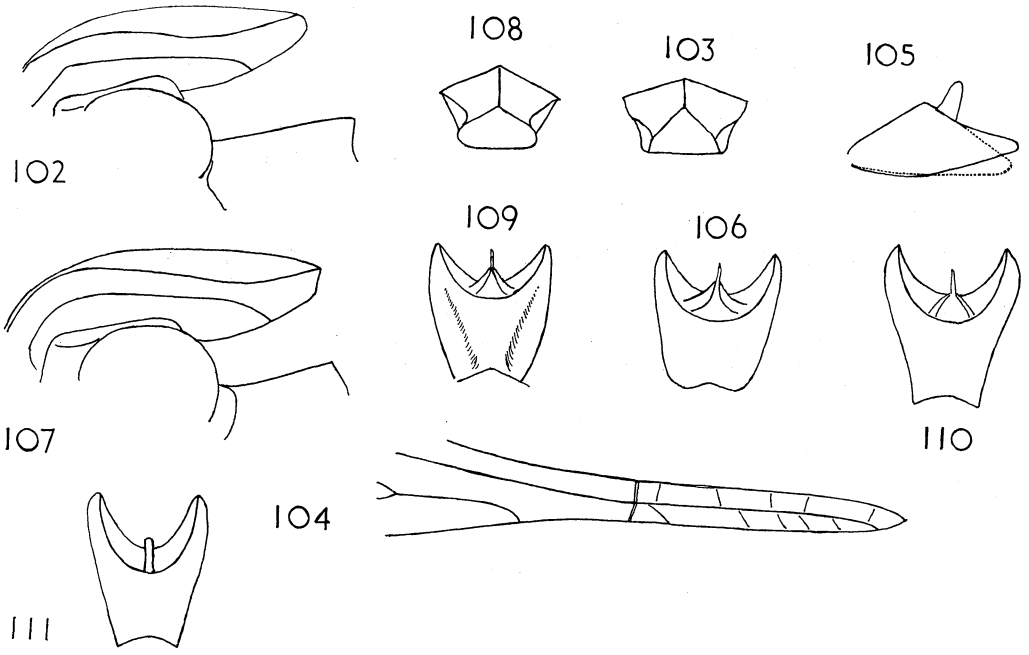

FIG. 102–111, *Neolieftinckana* species. 102–106, *Neolieftinckana fuscata* (Guérin-Méneville): 102, cephalic process, upper margin of head and dorsal margin of pronotum, left side; 103, cephalic process, posterior; 104, posterior portion of tegmen near claval apex, showing thickened transverse veinlets between Cu_1 and commissural margin; 105, anal segment of ♀, left side (solid line); 106, anal segment of ♀, dorsal. 105–109, *Neolieftinckana reversa* (Walker): 105, anal segment of ♀, left side (broken line); 107, cephalic process, upper margin of head and dorsal margin of pronotum, left side; 108, cephalic process, posterior; 109, anal segment of ♀, dorsal. 110, *Neolieftinckana dorsirubra* (Lallemand): anal segment of ♀, dorsal. 111, *Neolieftinckana pronax*, n. sp.: anal segment of ♀, dorsal.

♀. Anal segment with apical margin relatively shallowly excavate, as figured. Length, 15.0 mm, tegmen, 15.5 mm.

Holotype ♂ (BMNH), New Guinea: "Has", 1911, from Distant collection; 2 ♀♀ paratypes, same data as holotype.

This species resembles *U. saundersi* in color pattern, except on the ventral surface of the abdomen, but the 2 species, which may represent each other geographically, differ in the profile of the anteclypeus, the shape of the cephalic process, and the shape of the anal segment of the female.

Genus **Neolieftinckana** Lallemand

Neolieftinckana Lall., 1963: 51. (type-species: *Aphaena fuscata* Guérin-Méneville, 1838: 184).
Lieftinckana Lall., 1959: 190.

Key to species of *Neolieftinckana*

1. Cephalic process rather inflated, reaching to level of hind margin of pronotum (Aru).....**reversa**

Cephalic process not inflated, not attaining level of hind margin of pronotum (New Guinea).....2

2. Carinae of cephalic process wavy, median carina interrupted at irregular intervals, intercarinal areas rugose or papillate.....**dorsirubra,** n. stat.

Carinae of cephalic process normal, intercarinal areas almost smooth but with a few scattered weak eminences 3

3. Anal segment of ♂ narrow throughout, not widening in distal 1/2, tegmen more than 19 mm long.....**fuscata**

Anal segment of ♂ Y-shaped, widening in distal 1/2, tegmen 17–19 mm long.....**pronax,** n. sp.

Neolieftinckana fuscata (Guérin-Méneville) FIG. 102–106, 112, 114

Aphaena fuscata Guér., 1838: 184.

♂♀. Intercarinal areas of cephalic process smooth, or nearly so, carinae normal, lateral margins only slightly raised above sides of vertex, lower surface of process narrower than upper (1: 1.9). Tegmina almost uniformly dull brown, obscurely mottled with slightly darker brown.

♂. Anal segment only feebly widening distad.

MATERIAL EXAMINED. IRIAN: New Guinea (NW): 1 ♂, Vogelkop, trail Sucumi to Ransiki, 300–10 m, 7.VIII.1957, D. E. Hardy (BISHOP).

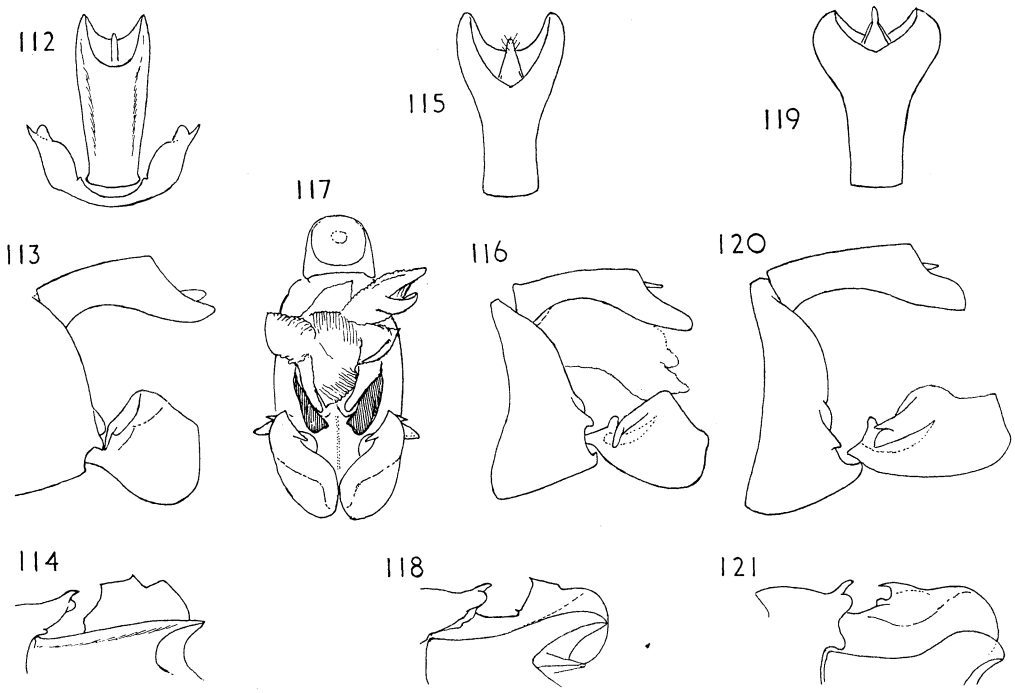

FIG. 112–121, *Neolieftinckana* species. 112–113, *Neolieftinckana fuscata* (Guérin-Méneville): 112, anal segment of ♂ and pygofer, dorsal; 113, ♂ genitalia (excluding aedeagus), left side; 114, lateral margin of pygofer, dorsal, and dorsal margin of right genital style, dorsomesal. 115–118, *Neolieftinckana pronax,* n. sp.: 115, anal segment of ♂, dorsal; 116, ♂ genitalia, left; 117, ♂ genitalia with aedeagus inflated, posterior; 118, lateral margin of pygofer, dorsal, and dorsal margin of right genital style, dorsomesal. 119–121, *Neolieftinckana dorsirubra* (Lallemand): 119, anal segment of ♂, dorsal; 120, ♂ genitalia, excluding aedeagus, left; 121, lateral margin of pygofer, dorsal, and dorsal margin of right genital style, dorsomesal.

The series in the British Museum (Nat. Hist.) includes 4 females from Dorey that agree with Guérin-Méneville's description and figure. Other localities represented include Andai, Utakwa River (W of Tami River), Angi Lake, and, most southeasterly of all, Elimo to Oivi. This last record, based on a male (10.VI.1921, E. O. Pockly) is evidence that the distribution of *N. fuscata* overlaps that of *N. dorsirubra*.

Neolieftinckana reversa (Walker), resurrected from synonymy FIG. 105, 107–109

Ulasia reversa Wlk., 1870: 90.

♀. Cephalic process rather inflated and extending backward as far as posterior margin of pronotum, or almost as far; lower (posterior) surface of process narrower than upper (1: 1.5). Tegmina brown, distinctly mottled with darker spots.

MOLUCCAS IS: Aru I: 2 ♀♀ (BMNH) constitute the material on which this taxon is based. The New Guinea records of Distant (1911: 389, 1912: 600, 1914: 347) and almost certainly that of Schmidt (1911: 247) refer to *N. fuscata*. The distinct mottling on the tegmina in itself serves to distinguish the Aru population from *N. fuscata*, and considered together with the cephalic differences, gives ground for regarding *N. reversa* as a separate species.

Neolieftinckana dorsirubra (Lallemand), new status FIG. 110, 119–121

Lieftinckana fuscata dorsirubra Lall., 1959: 191.

♂♀. Intercarinal areas of cephalic process rugose or papillate, and carinae uneven, wavy and notched at irregular intervals.

♂. Anal segment strongly widening in distal 1/2, Y-shaped, with the distal arms broad, relatively weakly declivous.

MATERIAL EXAMINED. PNG: New Guinea (NE): 1 ♂, Wewak, 2–20 m, 11.X.1957, J. L. Gressitt, 2 ♀♀, Torricelli Mts, Nengian Village, 17–24.X.1958, 1 ♀, Sisute (Siaute), sea level, 9–17.XI.1958, W. W. Brandt; 1 ♀, Lae, VII.1944, F. E. Skinner. IRIAN: New Guinea (NW): 2 ♂♂, 2 ♀♀, Waris, S of Hollandia, 450–500 m, 16–23.VIII.1959, T. C. Maa. There are specimens in the British Museum (Nat. Hist.) from the Humboldt Bay District, Bewani Mts, Milne Bay, Ngau-limon, S of Mt Bougainville, and Wandesi.

Neolieftinckana pronax Fennah, new species FIG. 111, 115–118

♂♀. Cephalic process with carinae normal, intercarinal areas a little uneven in places. Dull brown; abdomen dorsally orange-brown. Tegmina almost uniformly dull brown.

♂. Anal segment Y-shaped, with distal arms markedly declivous, not widened. Length, 13.5–14.0 mm, tegmen, 16.0–17.0 mm.

♀. Anal segment as figured. Length, 16.5 mm, tegmen, 19.0 mm.

Holotype ♂ (BMNH), PNG: New Guinea (SE): Kokoda, 1200 ft (366 m), VI.1933, L. E. Cheesman; paratypes: 5 ♂♂, 1 ♀, same data as type; 1 ♀, Mondo, 5000 ft (1524 m), II.1934, L. E. Cheesman (BMNH).

The cephalic process of this species is like that of *N. fuscata*, but the shape of the male anal segment is near to that of *N. dorsirubra*. The apical arms of the anal segment are

not so wide as in *N. dorsirubra* and are more declivous. In the female, the dorsolateral angles of the 9th tergite in *N. dorsirubra* are elongate-triangular, tumid, evenly infuscate, and slightly polished; in *N. pronax*, they are bluntly angulately rounded and the greater part of their surface forms a broad flattened or slightly hollowed area, and only a short ill-defined ridge laterally is pigmented, and is almost piceous.

Genus **Ombro** Fennah, new genus

Vertex broader at basal margin than long (nearly 1.5: 1), almost as wide anteriorly as posteriorly, lateral margins a little elevated, anterior margin a little surpassed by produced base of frons. Frons as broad as long, wider at widest part than at base (about 1.4: 1), basal margin shallowly convex, slightly and equally produced dorsad throughout its length; lateral carinae contiguous with lateral margins at laterobasal angles of frons, converging distad and nearer to each other apically than to lateral margins; disc transversely convex, becoming distinctly so in basal 1/2, and abruptly transversely bent dorsad at level of middle of eyes; eyes ovate; ocelli distinct; antennae with 2nd segment globose; rostrum reaching to apex of abdomen, with apparently 3 distinct segments distad of labrum. Pronotum with lateral margins formed anteriorly by lower marginal carina, posteriorly by upper marginal carina; dorsal lobe of tegula rather broadly rounded; posttibiae with 6 spines laterally and 6 apically; basal metatarsal segment with 8 teeth, 2nd segment with 8 teeth, both segments devoid of a setose pad. Tegmina longer than broad (about 3: 1), hyaline area extending basad of level of union of claval veins, and approximately to level of 1st fork of 2nd sector of M; no distinct transverse line of veinlets; clavus narrowly prolonged distally with Cu_2 entering posterior margin near anal angle. Anal segment of ♂ longer than broad (about 1.6: 1), with anal foramen in distal 1/2. Pygofer with dorsolateral angles produced caudad. Aedeagus bilaterally symmetrical, comprising about 5 pairs of lobes, ventral, median, lateral and 2 dorsal, all but the 1st armed apically with a small sclerite. Genital styles broad, with ventral surface wide.

Type-species: *Ombro vindemitor* Fennah, n. sp.

This genus is distinguishable by the shape of the cephalic process, the proportions of the vertex and pronotum, the ovate shape of the eye, the shape of the posterolateral angle of the lateral lobes of the pronotum, and the structure of the male genitalia.

Ombro vindemitor Fennah, new species FIG. 122–130

♂. Vertex broader at basal margin than long (1.6: 1), a little wider posteriorly than anteriorly (1.1: 1); margins of head above eyes almost parallel with upper margin of eye; lateral carinae of frons 2 × as far apart at base as at apex. Ochraceous, heavily suffused and sprinkled with red; marbling on central areas of frons and clypeus, and most of the submarginal areas of both, marbling and sprinkling on vertex, pronotum (especially on lateral lobes) and mesonotum, submarginal stripes on pleurites and banding on legs, fuscous; spots sublaterally and posterodorsal angles of abdominal sternites, piceous; sternites otherwise yellow; abdominal tergites dull yellow, lightly speckled with fuscous or red, narrowly green at posterior margin. Tegmina with corium dull red, heavily suffused with irregular fuscous areas; membrane hyaline, with about 12 diffuse fuscous spots; veins dull brown in corium, light yellowish or reddish brown in membrane. Wings hyaline to base, veins fuscous. Anal segment of ♂ longer than broad (1.5: 1), lateral margins slightly convex, apical margin transverse or only very shallowly concave. Pygofer with dorsolateral angles produced caudad in a short acute subtriangular lobe, lateral margins shallowly convex. Aedeagus when fully inflated with a pair of small narrowly conical lobes directed dorsocephalad (FIG. 127a), a pair of much larger, strongly sinuate, lobes directed dorsad, each with a small pigmented and denticulate sclerite apically (FIG. 126b), a pair of large conical lobes laterally, directed laterocaudad, and with a pigmented sclerite apically (FIG. 126c), and between these a pair of conical lobes of about the same size and likewise sclerotised apically (FIG. 126d), a pair of large foot-shaped ventrolateral lobes, devoid of sclerites, directed

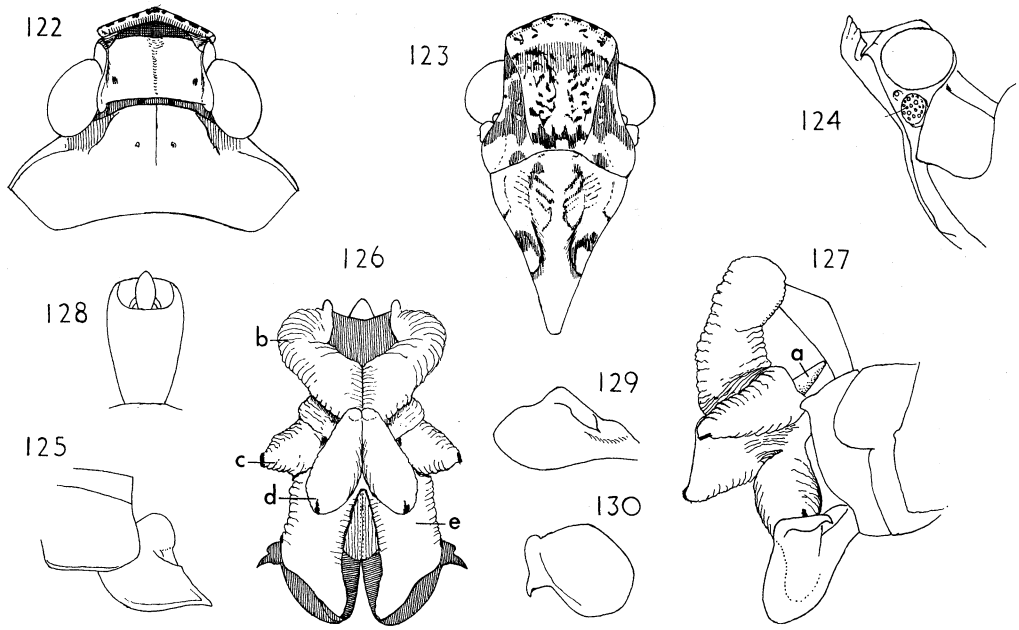

FIG. 122–130. *Ombro vindemitor*, n. gen., n. sp., ♂: 122, head and pronotum, dorsal, 123, frons and clypeus; 124, head, left side; 125, left lateral lobe of pronotum, with posterior margin at right, and mesepisternum; 126, ♂ genitalia with aedeagus inflated, posterior; 127, ♂ genitalia with aedeagus inflated, left side; 128, anal segment of ♂, dorsal; 129, right genital style, side; 130, left genital style, posterolateral.

ventrally (FIG. 126e). Genital styles scoop-like, dorsolateral process moderately long, directed laterad, with lower margin straight and a decurved spine at apex, apical angle not prominent, subrectangulately rounded.

Length, 13.0 mm, tegmen, 15.0 mm.

Holotype ♂ (BISHOP 10,650), PNG: New Guinea (NE): Feramin (nr Telefomin), 150–120 m, 7–14.VI.1959, W. W. Brandt.

When inflated, the pairs of dorsal lobes evidently function as elevators of the anal segment, and the ventral pair as depressors and separators of the genital styles.

GENUS **Bloeteanella** Lallemand

Bloeteanella Lall., 1959: 188 (type-species: *Bloeteanalla translucida* Lall., 1959: 188).

KEY TO SPECIES OF *Bloeteanella*

1. Cephalic process not as wide as apical margin of head; vertex longer at sides than broad at basal margin ..... **maharbal,** n. sp.
   Cephalic process as wide as apical margin of head; vertex not longer at sides than broad at basal margin 2
2. Cephalic process mitrate, as wide at 2/3 from base as at base; vertex distinctly broader than long at sides ..... **translucida**

Cephalic process progressively narrowing distad, not as wide at 2/3 from base as at base; vertex as long as broad.....**sobrina,** n. sp.

Bloeteanella translucida Lallemand · FIG. 131–137

Bloeteanella translucida Lall., 1959: 188.

♂♀. Cephalic process very slightly longer than broad, as broad as apical margin of head, pentagonal, with lateral angles rounding. Vertex wider at basal margin than long at sides (about 1.9: 1), margin of head behind posteroventral margin of eye not at all tumid or callussed.

♂. Anal segment subtubular, longer than broad, gradually and evenly widening distad. Pygofer with dorsolateral angles strongly produced dorsocaudad in a narrow tapering lobe hollowed out on its mesal surface. Genital styles with dorsolateral process longer than broad at middle (about 3.5:1), almost parallel-sided in middle portion and rapidly tapering in distal 1/4 into an apically-deflexed spine, apical angle subrectangulately rounded.

Lectotype ♂ (Leiden Museum), IRIAN: New Guinea (NW): Top camp, 2100 m, 28.I.1939, L. J. Toxopeus; 2 ♀♀ paratypes, same data except, 22.I.1939 (Leiden Mus.).

OTHER MATERIAL: IRIAN: New Guinea (NW): 1 ♀, Wisselmeren, Enarotadi, 1900 m, 19.VIII.1955, J. L. Gressitt.

The abdomen and genitalia of the lectotype are mounted on a card separately from the rest of the body, and the figure "60" is on the underside of the card. The date of collection cited by Lallemand for his syntypical series (18.X.1939) does not occur on the labels of any of the specimens, and falls outside the period when collections were made at Top camp (Toxopeus 1940). The female specimen from Enarotadi has a cephalic process that is more reclinate than in the type series, and the broad elevation down the middle line is equally wide throughout.

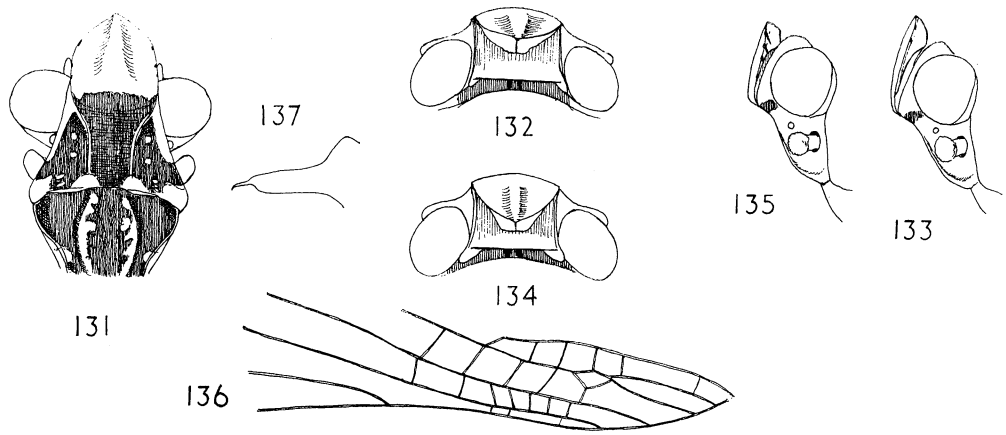

FIG. 131–137. *Bloeteanella translucida* Lallemand: 131, frons and basal part of clypeus; 132, vertex of ♂ lectotype, dorsal view; 133, head of lectotype, left; 134, vertex of specimen from Wisselmeren, dorsal; 135, head of same, left side; 136, posterior part of tegmen near claval apex; 137, dorsolateral process of genital style, posterolateral.

Bloeteanella maharbal Fennah, new species FIG 138–145

♂. Vertex slightly longer than broad along basal margin (1.1: 1), cephalic process at base not as wide as apex of vertex, in anterior view rather elongate, with margins curving mesad to acute apex, extending dorsad, not or scarcely curving backwards, anterior surface with a shallow sulcus on each side of a broad median ridge; posterior surface of process comprising a narrow groove between parallel carinae; frons slightly longer than broad, lateral carinae strongly converging in basal quarter of frons, thence obsolete distad, and indicated by color only as weakly diverging to apex. Tegmina with 10 rows of cells from Sc at stigma to apex of clavus. Ochraceous, in places with a faint greenish tinge, and sparsely sprinkled with red; frons, except for 5 submarginal pustules on each side, lateral margins, 2 triangular areas at frontoclypeal suture, clypeus basally, medially and interruptedly at margins, a spot on sides of head before antennae and 1 before eyes, 4 spots on vertex, 3 linear marks on pronotum near middle, lateral lobes, most of the mesonotal disc, procoxae in distal 1/2, 3 bands on profemora, 4 on protibiae, 2 on mesofemora, 3 on mesotibiae and 1 on postfemora, pro- and mesotarsi, about 12 small annular spots in each 1/2 of each abdominal sternite, and a rectangular spot near each lateral margin, light to dark fuscous; abdomen dorsally orange suffused with green. Tegmina with hyaline area extending basad almost to level of emission of 3rd sector of M, corium and clavus pale green, the former so heavily sprinkled and suffused with red as to appear brownish; 4 spots in costal cell, a larger spot from M to union of claval veins; 4 round or quadrate spots in clavus, and about 6 spots or suffusions in membrane, fuscous; veins greenish ochraceous. Wings hyaline, veins fuscous, but green basally. Anal segment in dorsal view longer than broad (1.7: 1), lateral margins straight, slightly diverging distad in basal 3/5, then strongly convex in apical 2/5. Pygofer with dorsolateral angles strongly produced dorsocaudad, markedly tapering distad and acutely rounded apically. Aedeagus with a pair of sclerotised lobes laterally, each parallel-sided and apically rounded, and a pair of similar smaller sclerotised lobes ventrally; membranous lobes comprising a large dorsal lobe and 2 pairs of lateral lobes. Genital styles with dorsolateral process with dorsal margin sinuate, ventral margin almost straight, spical tooth deflexed, apical angle not prominent, rectangulately rounded.

Length, 11.5 mm, tegmen, 12.0 mm.

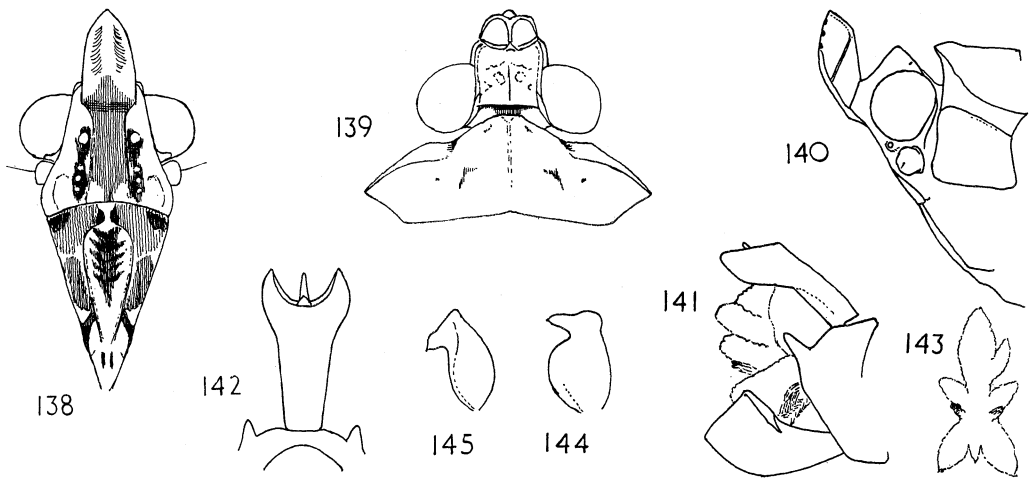

FIG. 138–145. *Bloeteanella maharbal*, n. sp., ♂: 138, frons and clypeus; 139, vertex and pronotum, dorsal; 140, head and pronotum, left; 141, ♂ genitalia, left; 142, anal segment of ♂, dorsal; 143, aedeagus inflated, posterior (diagrammatic); 144, left genital style, posterolateral; 145, left genital style, posterior.

Holotype ♂ (BISHOP 10,651), PNG: New Guinea (NE): Finisterre Range, Saidor, Matoko Village, 6–24.IX.1958, W. W. Brandt.

This species differs from *B. translucida* by the basally narrower cephalic process. Its general appearance is as much like that of a *Ulasia* as of a *Bloeteanella*, but the shortly ovoid form of the 2nd antennal segment and the structure of the male genitalia clearly show that it belongs to the latter.

Bloeteanella sobrina Fennah, new species FIG. 146–153

♂♀. Vertex as long as broad at basal margin; cephalic process longer than broad (1.3: 1), at base as wide as vertex, in anterodorsal view roundly tapering to acute apex, with a shallow sulcus near each lateral margin, in profile curving caudad over vertex and only a little elevated; frons slightly longer than broad; lateral carinae converging to middle then diverging distad. Pronotum broader than long in middle line (3: 1). Yellowish brown or ochraceous, sparsely sprinkled with red; frons, except for 3–5 submarginal pustules on each side and lateral margins, clypeus, except interruptedly at margins, a spot on side of head before antenna and a spot before eye, 4 spots on each lateral margin of cephalic process, lateral fields of pronotum at least in their upper 1/2, procoxae distally, 3 bands on each pro- and mesofemur, 4 bands on protibia, 3 bands on mesotibia and about 6 spots on side of posttibia, pro- and mesotarsi, intercarinal suffusions on pleurites, a heavy sprinkling of spots on abdominal sternites, and broad suffusions at edges of marginal sclerites and around spiracles, fuscous; a broad suffusion medially on pronotum, dilute greenish brown; abdomen dorsally greenish yellow or ochraceous, lightly sprinkled with red. Tegmina with corium dilute green, more or less tinged or finely sprinkled with red; 3 spots on costal margin extending into cell Sc + R, a large ovate spot near base of clavus, and a larger spot at union of claval veins, extending across to M, and a smaller spot a little nearer to apex of clavus, reddish brown darkening to fuscous at edges, membrane hyaline, with a spot near stigma and an oblique band parallel to apical margin, and about 12 small round spots, fuscous; veins pale greenish ochraceous, interrupted with red or fuscous. Wings hyaline to base, veins fuscous.

♂. Anal segment in dorsal view longer than broad (2.4: 1), lateral margins straight and slightly diverging distad in basal 3/4, weakly incurved in apical 1/4. Pygofer with dorsolateral angles strongly produced dorsocaudad in a parallel-sided process which is rather bluntly rounded apically. Aedeagus with a broad dorsal lobe, sclerotised and a little pigmented on its upper surface, a pair of membranous

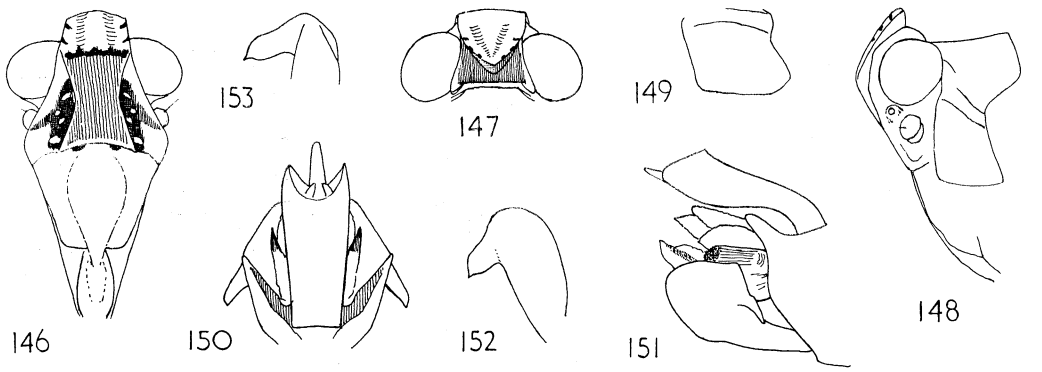

FIG. 146–153. *Bloeteanella sobrina*, n. sp.: 146, frons and clypeus; 147, vertex, dorsal; 148, head and pronotum, left side; 149, left lateral lobe of pronotum, with posterior margin at right; 150, ♂ genitalia, dorsal; 151, ♂ genitalia, right side; 152, left genital style, posterior; 153, dorsolateral process of left genital style, posterolateral.

lobes sublaterally below this, and a pair of broad thin sclerotised lobes, distally rounded and denticulate, lying laterad of the preceding; ventrally, a pair of large membranous lobes, and beneath them a pair of very thin broad sclerotised plates, each broadly rounded apically.

Length, 11.2 mm, tegmen, 13.0 mm.

♀. Length, 12.0 mm, tegmen, 15.0 mm.

Holotype ♂ (BISHOP 10,652), PNG: New Guinea (NE): Huon Pen.: main Finisterre Range near Freyberg Pass (N), 2550 m, 1–21.X.1958, W. W. Brandt; 1 ♀ paratype, same data as holotype (BISHOP).

OTHER MATERIAL: New Guinea (SE): 1 ♀, Owen Stanley Range, Goilala, Bome, 1950 m, 1–15.IV.1958, W. W. Brandt.

This species differs from *B. translucida* by its relatively longer vertex and cephalic process, by the width of the latter being less than that of the anterior margin of the head, and by the relatively shorter pronotum.

In the female from Bome, the coloration is more contrasting, the fuscous markings found in the typical population being replaced by black.

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