

Halter dark brown. Abdomen pale brown; hypopygium (fig 7S) darker; coxite conical, style strong, pointed, slightly shorter than coxite (40 : 46); aedeagus bell-shaped, with distinct basal roots, basal membrane pubescent; parameres separated, curved, apically flattened and without pointed tips.

Holotype ♂ (BISHOP 6726), Baingil, SE NG, III.1959, W. Peters.

This midge is allied to N. American *albiventris* Loew, S. African *vacunae* de Meillon, dark form of *conspersa* Johannsen reported from Sumatra by Macfie, and European *nigritula* Zetterstedt in some different points, but rather easily distinguished from these species: in *albiventris*, all femora are entirely dark and abdomen white; in *vacunae*, frontal tubercle of scutum and ventral batonnets of ♂ tarsal V are almost absent; in darker form of *conspersa*, hind TR is smaller being only about 2.3, hind tibia is dusky yellow and apically dark, and fMCu is beyond level of r-m; in *nigritula*, Rs is short being only 2× length of R<sub>1</sub>, and claws of both sexes are simple.

## SOME NEW ICHNEUMONIDAE (Hymenoptera) FROM NEW GUINEA AND ADJACENT AREAS<sup>1</sup>

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*Abstract:* Thirteen new species of Ichneumonidae representing the subfamilies Ephialtinae and Banchinae are described from New Guinea and adjacent areas. A new genus, which belongs in the subfamily Ephialtinae, is also described.

This article presents 13 new species of Ephialtinae and Banchinae and a new genus of Ephialtinae from New Guinea, Borneo and New Ireland. It is based on material from the collection of Bishop Museum, Honolulu, and all the holotype of the species described herein will be preserved there.

Taking this opportunity I would like to express my sincere thanks to Dr J. L. Gressitt and Dr C. M. Yoshimoto of Bishop Museum for the loan of material. I am also greatly indebted to Drs Henry and Marjorie Townes of the American Entomological Institute for their kindness in reading the manuscript.

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1. Reporting partial results of field work resulting from grants to Bishop Museum from the National Science Foundation (G-2127, 4774, 10734) and National Institutes of Health (AI 01723).

## Subfamily EPHIALTINAE

**Tromatobia pacifica** Momoï, n. sp. Fig. 1.

♀. Prepectal carina ending a little above level of mesopleural pit, almost straight and oblique above lower level of pronotum, its upper end distant from front rim of mesopleurum by about 1.0 width of tegula. Metapleurum unsculptured and hairless. Submetapleural carina complete. Propodeum with no dorso-median carinae nor dorso-lateral longitudinal ridges, its upper and lateral faces with punctures separated from one another usually by about, or slightly more than, their diameter. Tergite 1 evenly convex and with no dorso-median angle seen in lateral aspect, its dorso-lateral keel complete from base to apex, and its dorso-median keels short, extending only to spiracle and separated from each other at apices by a distance slightly greater than distance between one of the carinae and the spiracle. Tergites 2-6 with coarse and dense punctures that are mostly separated from each other by a little less than their diameters. Areolet present, sessile above. Radius at basal 0.4 of stigma. Nervellus reclivous, broken at the upper 0.4. Ovipositor sheath about 0.3 as long as fore wing. Fore wing ca. 8.0 mm.

Black. Mandible, clypeus except the base, malar space and postscutellum brownish white. Frontal orbit to top of head white. Tegula piceous black, with base white. Scutellum and a small apico-lateral spot of propodeum tinged with brown or brownish white. Humeral corner of pronotum immaculate black (holotype) or a little tinged with brown (paratype). Scape, pedicel and basal flagellar segment pale brownish beneath. Wing slightly yellowish. Stigma evenly brownish black. Fore and mid legs fulvous, with fore femur beneath, the apex of middle tarsal segments 1-3 and apical 1/2 of segment 5 infusate. Hind leg fulvous, with coxa except for hind face, base of trochanter, femur except for upper face and apex, apical 0.1-0.2 of tibia, the apex of tarsal segments 1-3, and apical 1/2 of segment 5, black.

Holotype ♀ (BISHOP 6664), Kiambavi Vill., Saidor, Finisterre Range, NE New Guinea, 22-20.VII.1958, W. W. Brandt. Paratype: ♀, Funiyende, 1200 m, Saidor, Finisterre Range, NE New Guinea, 24.IX.1958, W. W. Brandt.

There have been recorded two species of *Tromatobia* from the Indo-Australian area, namely, *oculatoria* from Pakistan and *ovivora* from Hawaii. These are considered, however, to be originally Holarctic elements and the present species appears to be the only known endemic species of the genus from this faunistic area. It bears typical characters of the *oculatoria* species-group but is different from any of the known species in the shape of the prepectal carina and tergite 1, as well as in the coloration of the body and the legs. It is related to the *ovivora* species-complex rather than to the *oculatoria* complex.

**Dreisbachia aperta** Momoï, n. sp. Fig. 2.

♀. Temple convexly receding, about 1.0 as long as eye in lateral aspect of head. Occipital carina strongly prominent. Face and clypeus a little shagreened, former with fine and sparse punctures and latter scarcely convex longitudinally with apical rim not reflexed. Eye inconspicuously hairy. Malar space not obliterated. Mesoscutum polished with fine and sparse punctures, hairless in greater part, its notaulus extending beyond front line of tegulae. Propodeum polished and hairless on dorsal face, with only a dorso-lateral longitudinal carina extending forward from apex to apical 0.2. Tergite 1 smooth,

with fine striae at bottom of its apical transverse impression, its dorso-median keels extending to spiracle. Tergites 2-4 smooth and polished, with sparse punctures basally on each tergite, virtually hairless on tergite 2, with short and very sparse hairs on tergites 3 and 4. Tergites 5 and 6 with fine and sparse punctures and short sparse hairs in greater part. Hind femur about 4.4 as long as wide. Areolet not defined. Nervellus broken at lower 0.3, with discoidella indistinct. Fore wing ca. 5.5 mm.

Black. Clypeus and tegula yellow. Palpi piceous brown. Tergites, especially apical tergites, more or less piceous. Antenna blackish brown. Wings slightly yellowish. Stigma brown. Legs fulvous with fore and mid coxae and trochanters yellow. Hind femur weakly infuscate apically. Hind tibia somewhat dirty yellow, with apical 0.3 and upper side of the basal 0.3 blackish brown. Hind tarsus blackish brown with base yellowish.

Holotype ♀ (BISHOP 6665), Mt Wilhelm, Aunde, 3600 m, NE New Guinea, 2.VI.1955, J. L. Gressitt.

There are two species-groups in the genus *Dreisbachia*, the *mira* group represented by *mira* Tosquinet, *flavifrontalis* Uchida & Momoi and *punctata* Uchida & Momoi, and the *stigmata* group represented by *stigmata* Uchida, *pictifrons* Thomson, *navajo* Townes and *slossonae* Desvignes. The present species belongs to the *stigmata* group with the inconspicuously hairy eye, the black face, the longer malar space, the strongly prominent occipital carina and the longer notaulus. It is, however, somewhat intermediate in having the face more or less shagreened and the apical rim of the clypeus truncate. It differs from all other species of the genus by the lack of the areolet of the fore wing.

#### Genus *Acrodactyla* Haliday

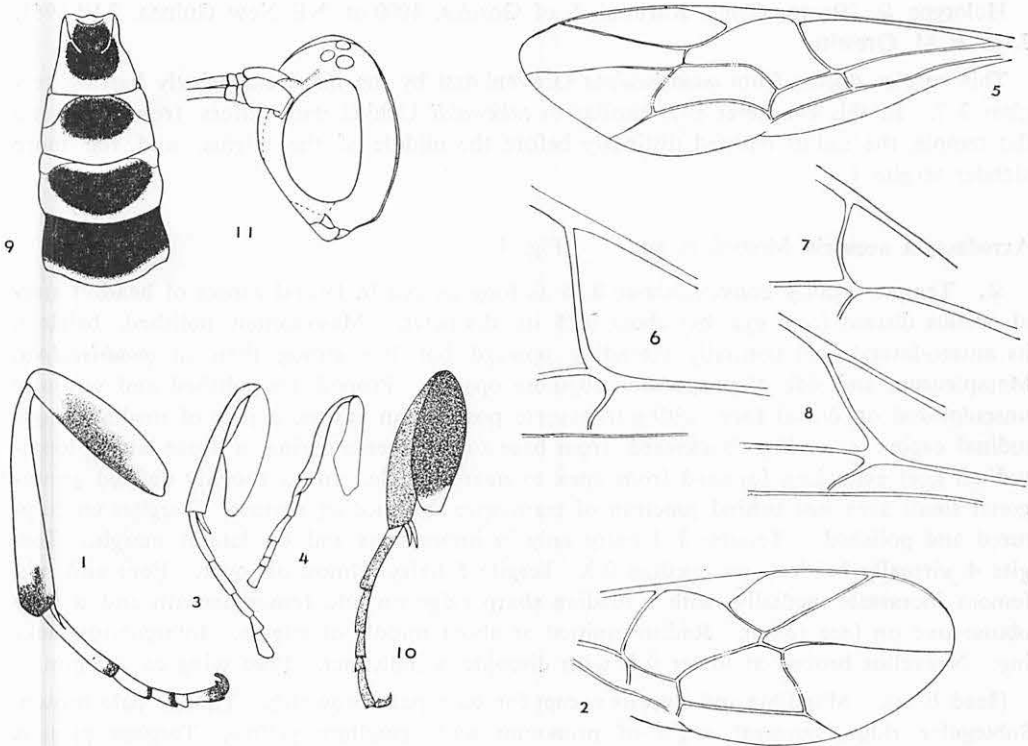
The following two species from New Guinea belong to the *quadrisculpta* species-group with the mesoscutum hairless and polished, and the metapleurum and lateral face of propodeum rugosely opaque. They differ from *orientalis* Cushman, the only species of the group recorded from the Indo-Australian region, by the presence of a median carista on the mid and fore femora in the female.

#### KEY TO SPECIES OF ACRODACTYLA

- Lateral ocellus distant from eye by about 1.0 its diameter. Tergite 5 hairless on the median 1/2. Fore femur with a sharp point at middle of median swelling. Radius emitted distinctly before middle of stigma ..... *gressitti*
- Lateral ocellus distant from eye by about 0.25 its diameter. Tergite 5 almost completely covered with hairs. Fore femur with a very obtuse point at middle of median swelling. Radius emitted near middle of stigma..... *aequaria*

*Acrodactyla gressitti* Momoi, n. sp. Fig. 3.

♀. Temple flat, about 0.5 as long as eye in lateral aspect of head. Lateral ocellus distant from eye by about 1.0 its diameter. Mesoscutum polished, its antero-lateral keel strong as in *quadrisculpta*. Metapleurum and side of propodeum rugulose opaque. Propodeum virtually smooth and hairless on dorsal face, with a strong postmedian transverse carina, one pair of dorso-median longitudinal carina extending backward from base to



Figs. 1-11. 1, *Tromatobia pacifica*, n. sp., part of hind leg, showing color pattern; 2, *Dreisbachia aperta*, n. sp., part of fore wing; 3, *Acrodactyla gressitti*, n. sp., part of fore leg; 4, *Acrodactyla aequaria*, n. sp., part of fore leg; 5, *Millironia infumata*, n. sp., fore wing; 6, *Millironia infumata*, n. sp., part of fore wing; 7, *Millironia sinuata*, n. sp., part of fore wing; 8, *Millironia fasciata*, n. sp., part of fore wing; 9, *Itopectis australis*, n. sp., tergites 1-4, showing color pattern; 10, *Itopectis australis*, n. sp., part of hind leg, showing color pattern; 11, *Lycorina cornigera*, n. sp., head, in lateral view.

transverse carina, and a dorso-lateral longitudinal carina extending forward from apex to spiracle, obscurely rugulose medially just behind transverse carina. Tergites polished and unsculptured, tergite 5 hairless on median 1/2 or more, tergites before 5 hairy on much reduced lateral portions, and tergites behind 5 more extensively hairy. Fore and mid femora incrassate medially with a sharp point. Intercubitus not obliterated. Nervellus broken at lower 0.3, with discoidella. Radius emitted distinctly before middle of stigma. Fore wing ca. 5.5 mm.

Head black with mandible and palpi yellow. Thorax red, more or less blackish on propodeum. Lower and upper hind corners of pronotum and subtegular ridge yellow. Scutellum tinged with yellow. Tergites black, more or less piceous, especially laterally. Tergites 5-7 yellow at extreme apical rim. Antenna brownish black to black, its scape, pedicel and flagellar segment 1 yellow beneath. Legs fulvous. Coxae, trochanters and apex of hind femur yellow. Hind tibia yellow with apical 0.3 and subbasal portion more or less darkened. Hind tarsus fuscous brown, its segments 1-3 somewhat yellowish except apex. Wings hyaline. Stigma dark brown.

Holotype ♀ (BISHOP 6666), Karimui, S of Goroka, 1000 m, NE New Guinea, 3.VI.1961, J. L. & M. Gressitt.

This species differs from *quadrisculpta* Gravenhorst by the more extensively hairless tergites 3-7. In this character it is similar to *takewakii* Uchida but differs from it by the flat temple, the radius emitted distinctly before the middle of the stigma, and the more slender tergite 1.

*Acrodactyla aequaria* Momoi, n. sp. Fig. 4.

♀. Temple weakly convex, about 0.26 as long as eye in lateral aspect of head. Lateral ocellus distant from eye by about 0.25 its diameter. Mesoscutum polished, hairless, its antero-lateral keel normally extending upward but less strong than in *quadrisculpta*. Metapleurum and side of propodeum rugulose opaque. Propodeum polished and virtually unsculptured on dorsal face, with a transverse postmedian carina, a pair of median longitudinal carina extending backward from base to transverse carina, a dorso-lateral longitudinal keel extending forward from apex to near spiracle, and a roughly defined pentagonal small area just behind junction of transverse and median carinae. Tergites unsculptured and polished. Tergites 1-3 hairy only in impressions and on lateral margin. Tergite 4 virtually hairless on median 0.3. Tergite 5 hairy almost all over. Fore and mid femora incrassate medially, with a median sharp ridge on mid femur beneath and a very obtuse one on fore femur. Radius emitted at about middle of stigma. Intercubitus lacking. Nervellus broken at lower 0.4, with discoidella indistinct. Fore wing ca. 4.5 mm.

Head black. Mandible and clypeus except for base pale brownish. Thorax pale brown. Subtegular ridge, humeral angle of pronotum and scutellum yellow. Tergites piceous black, with apical rim of tergites 6 and 7 white and extreme lateral rim of each tergite brownish. Antenna blackish brown, its scape and pedicel yellow beneath. Legs fulvous. Hind tibia infusate except at base. Hind tarsus very weakly infusate. Wings hyaline. Stigma infusate brown.

Holotype ♀ (BISHOP 6667), Fak Fak, S. coast of Bomberai, 100-700 m, Vogelkop, SW New Guinea, 9.VI.1959, light trap, J. L. Gressitt & T. C. Maa.

This species differs from *quadrisculpta* Gravenhorst and *takewakii* Uchida by its larger ocelli with the lateral ocellus distant from the eye by about 0.25 its diameter, while it is distant from the eye by about its diameter in *quadrisculpta* and *takewakii*. Furthermore, it is characterized by the shape of the fore femur and the weaker antero-lateral keel on the mesoscutum.

*Eriostethus mesorufus* Momoi, n. sp.

♀. Occipital carina completely absent. Temple exactly flat, about 0.6 as long as eye in lateral aspect of head. Lateral ocellus distant from eye by about 0.8 its diameter. Mal- ar space about as long as basal width of mandible. Face about as long as wide. Propodeum with a very weak and short dorso-median longitudinal sulcus at base, with no carinae. Tergite 1 about 1.2 as long as wide at apex, not flat but rather distinctly sloped forward before spiracle when seen in lateral view, its dorso-lateral keel absent and dorso-median keels very weak and short. Tergite 2 about as long as wide at base. Tergites almost completely hairless except on lateral rim of tergites beyond 3. Intercubitus about

0.5 as long as abscissa 2 of cubitus. Radius emitted slightly before middle of stigma. Second recurrent gradually sloped backwards, with no stub above lower bulla. Fore wing ca. 9.0 mm.

Head black with apex of clypeus reddish and palpi reddish brown. Pro- and mesothorax reddish brown with mesepimeron black. Metathorax, propodeum and tergites 2-8 black, with apex and lateral rim of each tergite yellowish white. Tergite 1 yellowish white. Antenna blackish brown. Fore leg yellowish brown. Mid and hind legs black. Wings weakly infumate.

Holotype ♀ (BISHOP 6668), 14 km SW of Wau, Edie Creek, 2000 m, NE New Guinea, 13.II.1962, J. Sedlacek.

This species is most conspicuously different from other species of *Eriostethus* in the coloration of the body, the head, metathorax and greater part of the abdomen being black and pro- and mesothorax reddish brown.

It seems worthy to note here that in this species the sternites have a pair of strongly chitinized large sclerites near the base of each sternite. Though this character is not mentioned by Baltazar (1964) in her revision of the genera *Eriostethus* and *Millironia*, it appears to be an important diagnostic character distinguishing *Eriostethus* from *Millironia*, which genera are very closely related to each other.

#### Genus *Millironia* Baltazar

The following key will serve to distinguish three species of *Millironia* described below from southern Pacific islands.

1. Mesoscutum fulvous with black fasciae. Hind femur black or blackish brown. Radius emitted at middle of stigma. Nervulus at basal vein ..... **fasciata**  
 Mesoscutum fulvous with no blackish fasciae. Hind femur fulvous. Nervulus basad of basal vein by about 0.5 its length. Radius emitted at basal 0.4 of stigma ..... 2
2. Mediella almost straight, without a distinct node behind middle. Basal vein evenly weakly curved. Dorso-median keels of tergite 1 extending to basal 0.3 of tergite ..... **infumata**  
 Mediella with a distinct node behind middle. Basal vein rather angularly bending medially. Dorso-median keels of tergite 1 extending to apical 0.2 of tergite ..... **sinuata**

*Millironia infumata* Momoï, n. sp. Figs. 5, 6.

Temple weakly convex. Occipital carina strongly prominent. Lateral ocellus almost touching eye. Face about 1.2 as long as wide. Propodeum longitudinally sulcate at middle, with an obtuse longitudinal ridge on each side of median sulcus extending from the base to apical 0.4. Tergite 1 about 2.0 as long as wide at apex, its dorso-median keels extending from base to basal 0.3, and its dorso-lateral keels sharp at least before spiracle. Tergite 2 about 1.3 as long as wide. Tergite 3 about as long as wide, hairy on lateral rim, in the impression and on the baso-median portion. Nervulus before basal vein by about 0.3 to 0.5 its length. Basal vein weakly and evenly curved, broadened slightly a little below

middle. Mediella with no node, almost straight. Radius emitted at basal 0.4 of stigma. Fore wing ♀ ca. 9-11 mm, ♂ ca. 8 mm.

Head yellow. Cheek somewhat infusate. Thorax fulvous. Tergite 1 fulvous with apex yellow. Tergites 2-8 black, with apex of tergites 3-5 on each side behind apical impression yellowish white except at extreme apical rim, and with apex of tergites 6 and 7 broadly yellowish white. Tergite 2 often in greater part reddish brown. Antenna blackish brown apically, fulvous basally. Legs fulvous with hind tarsus and tibia infusate. Wings strongly infumate in ♀, weakly infumate in ♂. Stigma blackish brown.

Holotype ♀ (BISHOP 6669), Lelet Plateau, Schleinitz Mts., New Ireland, X.1959, W. W. Brandt. Paratypes: ♀, same data as type; ♀, ♂, Kandan, New Ireland, 1.I.1960, W. W. Brandt; ♂, Upper Jimmi Val., Tsenga, 1200 m, NE New Guinea, 14.VI.1955, J. L. Gressitt; ♀, Wau, Morobe District, 1200 m, NE New Guinea, 15-30.IX.1962, J. Sedlacek.

**Millironia sinuata** Momoi, n. sp.      Fig. 7.

♀. Temple exactly flat. Lateral ocellus almost touching eye. Occipital carina strongly prominent. Face about 1.2 as long as wide. Propodeum with a pair of median sharp and closely spaced longitudinal carinae extending from base to apical 0.25 and diverging in their apical 1/3. Tergite 1 about 1.9 as long as wide at apex, its dorso-median keels sharp, extending from base to apical transverse impression. Tergite 2 about 1.2 as long as wide at apex. Tergite 4 hairy only on lateral rim and in impressions. Tergite 5 almost completely covered with short and sparse hairs. Mediella distinctly broadened behind middle. Basal vein rather angularly bending slightly below middle. Radius emitted at basal 0.4 of stigma. Fore wing ca. 7.0 mm.

Fulvous. Tergites 2-8 black, with apex and lateral margin of tergites 2-6 broadly, the basal-lateral corner and middle of median elevation of tergite 2, and apex of tergites 7 and 8 narrowly, fulvous to pale brown. Antenna blackish brown, its scape, pedicel and several basal flagellar segments fulvous to pale brown. Hind tibia and tarsus blackish brown. Wings weakly yellowish. Stigma pale brown with front rim black.

Holotype ♀ (BISHOP 6670), Sibog Vill., Saidor, Finisterre Range, NE New Guinea, 6-16. VI.1958, W. W. Brandt.

**Millironia fasciata** Momoi, n. sp.      Fig. 8.

♀. Temple precisely flat. Occipital carina strongly prominent. Lateral ocellus almost touching eye. Face about 1.3 as long as wide. Propodeum with a short and weak median longitudinal sulcus at base. Tergite 1 about 1.8 as long as wide at apex, its dorso-median keels extending from base to spiracle and its dorso-lateral keels complete from base to apex. Tergite 2 about 1.1 as long as wide at apex. Tergite 5 rather evenly hairy almost all over. Radius emitted at middle of stigma. Basal vein distinctly but not angularly sinuate. Mediella almost straight, strongly broadened at junction of nervulus. Nervulus at basal vein. Fore wing ca. 7-9 mm.

Head yellow. Thorax yellow to fulvous with 3 lines on mesoscutum and greater part of mesosternum blackish. Tergites 1-3 yellow to fulvous with median elevation of tergites 2 and 3 blackish except in middle. Tergites 4-8 black with apex and lateral rim broadly yellow. Antenna blackish brown. Fore and mid legs fulvous to reddish brown. Hind leg

blackish brown to black. Wings scarcely infumate.

Holotype ♀ (BISHOP 6671), Tawau, Quoin Hill, Sabah (N. Borneo), 26-29.VII.1962, light trap, H. Holtmann. Paratype: ♀, Korop, Upper Jimmi Val., 1300 m, NE New Guinea, 12.VII.1955, light trap, J. L. Gressitt.

The paratype is somewhat different from the holotype in having the black fasciae of the thorax and tergites very indefinite and extensive, and the body size smaller.

*Itopectis australis* Momoi, n. sp. Figs. 9, 10.

♀. Flagellum weakly thickened towards apex, 22-segmented, its 6th segment from apex about 1.6 as long as wide. Temple about 0.56 as long as eye in lateral aspect of head. Mesoscutum with a fine ridge extending backward from base of notaulus along lateral rim, with fine and weak punctures separated from one another in greater part by more than their diameters, and with short and moderately dense hairs, its notaulus a weak short impression. Mesopleurum finely and sparsely punctate in the front 1/2 and with only some countable fine punctures in the hind 1/2. Prepectal carina weakly and gently sinuate on lower level of pronotum. Metapleurum virtually unsculptured and hairless. Propodeum with no distinct dorso-median carinae, unsculptured and hairless on dorsal face except in the extreme lateral side. Fore tarsal claw with a very small acute tooth at base. Hind tarsal segment 5 about 1.1 as long as segment 2. Tergites 1-5 with very dense punctures, which more or less tend to be confluent longitudinally, except for the baso-lateral corner of tergite 1, the corner being virtually smooth. Basal concavity of tergite 1 and extreme apical rim of each tergite completely unsculptured. Postmedian transverse impressions on tergites 2-5 strong (slightly stronger than in *alternans* and weaker than in *naranyae*). Tergite 6 with punctures remarkably sparser and a little finer than those on preceding tergites its postmedian lateral elevations barely evident. Tergite 7 with a few fine punctures. Ovipositor sheath about 1.5 as long as tergite 1. Fore wing ca. 4.3-6 mm.

♂. Tergites 2-6 and base of tergite 7 with dense punctures. Tergite 1 punctate only apico-medially. Flagellar segment 5th from the apex about 1.1 as long as wide. Otherwise very similar to ♀. Fore wing ca. 3.8 mm.

Black. Palpi, tegula, apical and lateral margins of tergite 1, tergites 2 and 3 except in their median elevations, and the apical margin of tergites 4 and 5, yellow. Tergite 5 laterally behind its postmedian impression and greater part of tergite 6-8, dark red. Fore and mid legs yellow to yellowish white, with their coxae and middle 1st trochanter black, and upper face of their femora, tibiae and tarsal segments 5 blackish brown. Fore tibia and tarsus and mid tarsus more or less brownish. Hind leg black, with base of femur and apex of trochanter reddish, and base of tarsal segments 1-3 more or less whitish. Wings hyaline. Stigma blackish brown evenly.

Holotype ♀ (BISHOP 6672), Mt Otto, 2200 m, NE New Guinea, 24.VI.1955, J. L. Gressitt. Paratypes: ♀, same data as type; 2♀♀, Moife, 2100 m, 15 km NW of Opaka, NE New Guinea, 11-13.X.1955; 2♀♀, Sinofi, 1590 m, 30 km S of Kainantu, NE New Guinea, 1-6.X.1959; ♀, Tapo (Tapu), 1650 m, 3 km NW of Kainantu, NE New Guinea, 22.X.1959; ♀, Vunabakan 180 m, 10 km E of Keravat, NE New Guinea, 16-20.XI.1959, T. C. Maa; ♂, Daulo Pass, 2500 m, NE New Guinea, 2.V.1959, C. D. Michener.

This species belongs in, or is at least closely related to the *alternans* species-group. It



differs, however, from any species of the group by the almost uniformly black hind leg, the presence of white marks on the basal tergites and by the characteristically short hind tarsal segment 5.

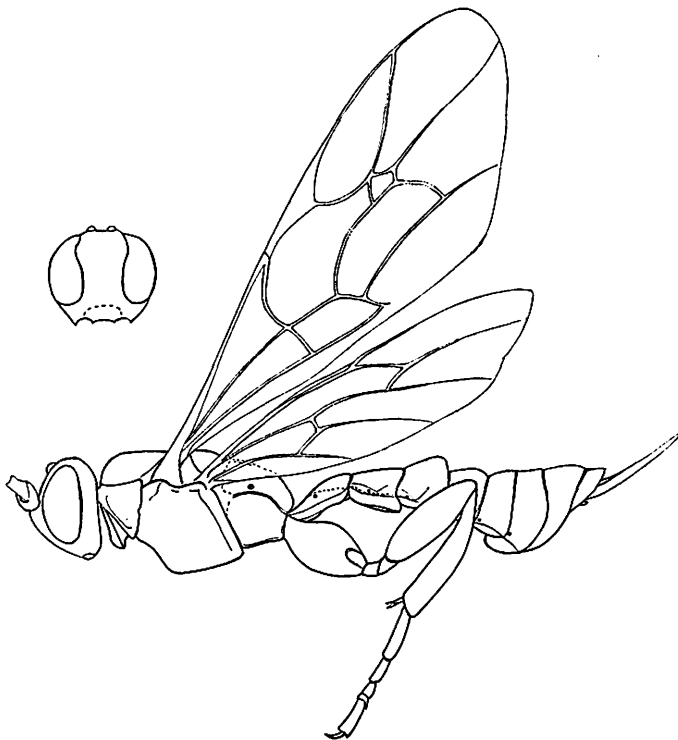
Genus *Alophopimpla* Momoi, n. gen.

This genus belongs to the tribe Ephialtini of the subfamily Ephialtinae, and is with no doubt very closely related to *Itopectis*. It differs, however, from *Itopectis* as well as from any other genus of the tribe by the following combination of characters.

Eye with a weak emargination opposite antenna. Labrum hidden beneath clypeus. Mandible broad, its teeth approximately equal in size. Occipital carina absent. Epomia present. Notaulus almost obsolete. Prepectal carina absent. Meta- and submetapleural carina complete. Postpectal carina absent. Propodeum with no carinae except vestigial median longitudinal carinae. Propodeal spiracle circular. Hind femur without a tooth beneath. Tarsal segment 5 elongate, that of the mid and hind tarsi longer than segment 2. Tarsal claws with no basal tooth nor enlarged flat tipped hair. Tergites virtually unsculptured and polished. Epipleura narrow, linear. Ovipositor straight, approximately cylindrical.

Type-species: *Alophopimpla polia* Momoi, n. sp.

The emargination of the eye is similar essentially in shape to that in *Itopectis* but less



Figs. 12. *Alophopimpla polia*, n. sp., whole insect (except antenna and fore and mid legs), in lateral view, and head in frontal view.

strong.

**Alophopimpla polia** Momoi, n. sp. Fig. 12.

♀. Temple convexly receding, about 0.8 as long as eye in lateral aspect of head. Malar space about 0.8 as long as basal width of mandible. Lateral ocellus distant from eye by about 1.0 its diameter. Occipital carina completely lacking. Face with fine rather evenly distributed punctures that are separated from one another by slightly more than their diameter. Clypeus with no sculpture except a few punctures at base. Pronotum unsculptured, polished. Mesoscutum polished, with fine punctures usually distant from one another by about 2 or more times their diameter, with moderately short and sparse hairs. Mesopleurum polished, with fine sparse punctures and sparse hairs in the front 1/2, virtually impunctate and hairless in the hind 1/2. Prepectal carina completely lacking. Scutellum with no lateral longitudinal carina, weakly convex. Metapleurum polished and hairless. Propodeum polished, unsculptured, with only some weak punctures and elongate sparse hairs on lateral face and median portion of dorso-lateral area, with a pair of median longitudinal very obtuse ridges basally. Tergites unsculptured and polished, with fine sparse punctures only on tergites 3-5. Tergite 1 weakly convex, about as long as wide at apex, with no dorso-median nor dorso-lateral keels, virtually hairless. Tergites 2-4 each with a postmedian transverse impression, which is interrupted medially, a short baso-lateral oblique impression and a weak elevation between the basal and postmedian impressions. Tergite 5 with a weak and short postmedian transverse impression on each side. Hind femur about 2.5 as long as wide. Hind tarsal segment 5 about 1.15 as long as segment 2. Fore and mid tibiae more or less swollen medially. Areolet quadrangular, large for a member of Ephialtini. Sheath about 1.4 as long as tergite 1. Fore wing ca. 5.0 mm.

Black. Palpi, tergites 1 and 2, lateral and apical margins of tergites 3-7 broadly, and lateral portion of tergite 8, white. Legs white. Tarsi, upper side of fore femur and tibia, mid tibia except the flexor side, apical 0.25 of hind tibia, and base of hind femur, blackish brown, the brown color of the hind tibia extending on the flexor side to the middle. Hind coxa except in the front side of the apex black. Wings weakly infumate. Veins blackish brown.

Holotype ♀ (BISHOP 6673), Mt Otto, 2200 m, NE New Guinea, 22.VI.1955, J. L. Gressitt.

Subfamily BANCHINAE

Genus *Lycorina* Holmgren

*Lycorina* has hitherto been known only from the Palaearctic region, where it is represented by two described species. The three species described below from southern Pacific islands differ in no essential way from the Palaearctic species, although they exhibit much broader variation in structure and coloration as seen in the following key and descriptions. It is here emphasized that the three species are characterized by the presence of a more or less distinct median preapical convexity of the clypeus.

## KEY TO SPECIES OF LYCORINA

1. Body and legs yellow with sparse black maculae. Wings hyaline with apex distinctly infumate. Interantennal process lamina-shaped, and on top of the lamina a carina extending upward to just below median ocellus. Tergites 1 and 2 fused ..... **cornigera**  
 Body and legs black with yellow or red maculae. Wings completely hyaline or evenly weakly infumate. Interantennal process carina-shaped. Tergites 1 and 2 not fused..... 2
2. Pro- and mesothorax red. Hind tibia entirely black. Tergites virtually unsculptured. Epomia not tooth-shaped at upper end..... **inarata**  
 Pro- and mesothorax black. Hind tibia yellow basally, blackish apically. Tergites with dense punctures in greater part. Epomia tooth-shaped at upper end .....  
 ..... **borneoensis**

*Lycorina cornigera* Momoi, n. sp.      Figs. 11, 13.

♀. Polished with strong and dense punctures on face, pronotum behind epomia, meso-scutum, scutellum, mesopleurum except for its hind upper corner, metapleurum except its

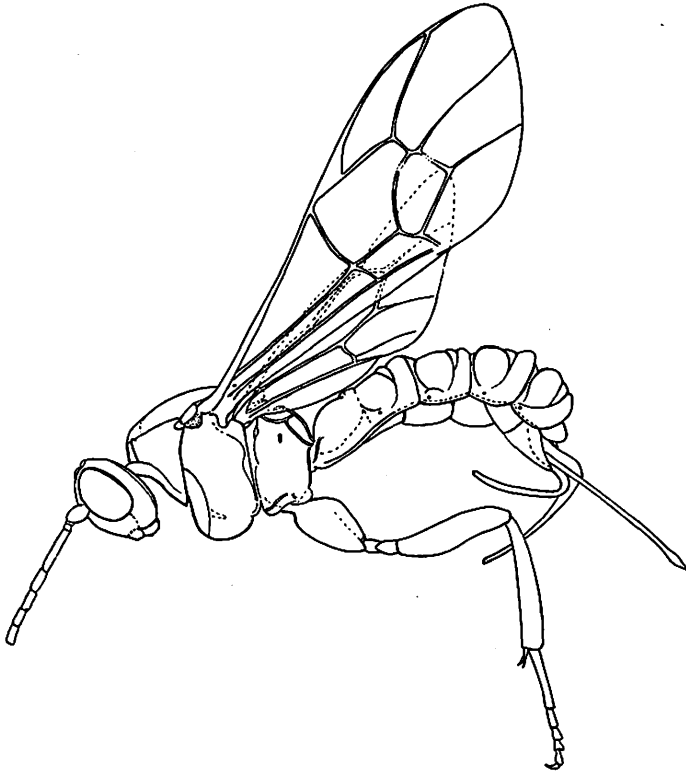


Fig. 13. *Lycorina cornigera*, n. sp., whole insect (except apical part of antenna and fore and mid legs), in lateral view.

front corner, propodeum, and tergites 1-5 except in median portion of tergite 1 before its apical median elevation. Face with a high interantennal lamina extending upward to upper level of antennal sockets, on top of lamina a sharp carina extending upward to just below median ocellus and downward onto top of face. Temple almost flat, strongly receding backward, about 0.5 as long as eye in lateral aspect of head. Clypeus with a weak and obtuse median convexity just before apex. Flagellum a little attenuate towards apex, its 5th segment from apex about 1.0 as long as wide. Pronotum with costae at bottom of lateral scrobe. Epomia tooth-shaped at upper end. Propodeum short, sharply areolated, its areola not defined laterally behind costulae and about 0.6 as long as wide at the costulae. Tergite 1 about 0.7 as long as wide at apex, evenly convex, its preapical transverse impression shallow and interrupted medially, its triangular apical elevation weakly prominent but not defined by a sharp impression, and its dorso-median carinae short, extending only to spiracle. Tergites 2-5 with their impressions very deep and elevations strongly prominent. Tergite 1 fused with tergite 2 and with no lateral gap between them. Nervulus at basal vein. Nervellus strongly inclivous, with discoidella very near the bottom. Hind tarsus shorter than tibia, its segment 2 about 2.2 as long as wide. Ovipositor sheath about 1.6 as long as hind tibia. Fore wing ca. 10 mm.

Yellow. Middle of frons, stemmaticum, hind portion of vertex, and 3 longitudinal lines of mesoscutum, black. Lateral elevations of tergites 2-5 dark brownish in part. Antenna blackish brown with scape and pedicel yellow beneath. Hind femur a little brownish on outer side. Hind tarsus fuscous brown. Wings hyaline, distinctly infumate at apex.

Holotype ♀ (BISHOP 6674), Oriomo Govt. Sta., 5 m, Papua, W. District, SE New Guinea, 26-28.X.1960, malaise trap, J. L. Gressitt.

*Lycorina borneoensis* Momoi, n. sp.

♀. Face with fine and dense punctures on median elevation and many sparse punctures on lateral areas, its interantennal process carina-shaped, not extending above upper level of antennal sockets. Clypeus with a distinct median convexity just before apex. Temple convexly receding, about 0.6 as long as eye in lateral aspect of head. Flagellum of the same thickness from base to apex, its 5th segment from apex about 1.0 as long as wide. Pronotum unsculptured in greater part. Epomia tooth-shaped at upper end. Mesoscutum more or less mat, with medium-sized dense punctures, most of them tending to be confluent. Scutellum with some weak punctures. Mesopleurum with medium-sized punctures ventrally and anteriorly separated from one another by about their diameter, its hind 1/2 unsculptured. Metapleurum with fine and sparse punctures. Propodeum with medium-sized dense punctures on lateral and posterior faces, and sparse punctures on dorsal face, sharply areolated. Areola almost trapezoid, strongly broadened backward before costula and not or weakly broadened behind costula, which is a little behind middle, about as long as wide. Tergites 1-5 with medium to coarse punctures arranged in row of longitudinal striae. Tergite 1 about as long as wide at apex, its preapical transverse impressions complete, its apical triangular elevation sharply set off and more or less smooth, and its dorso-median keels extending from base to triangular elevation. Tergite 5 with its preapical transverse impression complete, not interrupted medially. Hind tarsus distinctly shorter than tibia, its segment 2 about 2.4 as long as wide. Nervulus at basal vein. Nervellus broken very near bottom, with strong discoidella. Ovipositor sheath about 1.3 as long as hind tibia.

Fore wing ca. 6-7 mm.

Black. Yellow are: inner orbit, upper part of face except a triangular area just below each antennal socket, clypeus, mandible, neck, a narrow line on pronotum extending forward along upper rim from humeral angle, a spot on base of notaulus, a pair of central spots on mesoscutum, scutellum and its basal folia, postscutellum, subtegular ridge and a spot below the ridge, upper end of mesepimeron, apical 1/2 of propodeum and metapleurum, the apex of tergites 1-5 behind preapical transverse impression, and base of tergite 1. Flagellum yellowish brown beneath, blackish brown above, becoming black apically. Scape and pedicel black above, yellow beneath. Fore and mid legs yellow with base of their coxae black. Hind leg black, with apex of femur and basal 0.6 of tibia yellow. Wings hyaline. Stigma blackish brown.

Holotype ♀ (BISHOP 6675), Cocoa Res. Sta., Quoin Hill, Tawau, Sabah (N. Borneo), 1.IX.1962, malaise trap, Y. Hirashima. Paratype: ♀, Quoin Hill, Tawau, Sabah (N. Borneo), 8-14.VII.1962, malaise trap, H. Holtmann.

***Lycorina inarata* Momoi, n. sp.**

♀. Face polished, with some fine punctures on median elevation, its interantennal process carina-shaped, obtuse, extending upward to middle of frons. Clypeus with a distinct median convexity just before apex. Temple convexly receding. Flagellum weakly thickened towards apex, its 5th segment from apex about 0.9 as long as wide. Pronotum, mesoscutum, scutellum, mesopleurum and metapleurum virtually unsculptured and polished, with sparse hairs. Epomia weak and not tubercled at upper end. Propodeum areolated sharply. Areola strongly broadened backward before costula and subparallel behind costula, about as long as wide at apex with costula slightly behind middle. Nervellus broken at lower 0.2, with discoidella indistinct. Nervulus a little before basal vein. Hind tarsus about 0.9 as long as tibia, its segment 2 about 2.5 as long as wide. Tergites 1-5 virtually impunctate and polished, with impressions costate weakly on posterior tergites, hairy only in impressions, at the extreme lateral rim and on lateral elevations of tergite 4, and in greater part of tergite 5. Tergite 1 with its preapical transverse impression sharp but present only in the median 1/2, its triangular area defined weakly in front and its dorso-median keels not extending to elevation. Tergite 5 without a transverse preapical impression. Sheath about 1.4 as long as hind tibia. Fore wing ca. 6 mm.

Black. Mandible, clypeus, lower median part of face, a lateral spot on top of head, lateral part of tergites 1 and 2, lateral carina and apex of scutellum, and postscutellum, white. Pro- and mesothorax red. Wings evenly infumate. Fore leg white, with base of coxa, femur except for the front side and apex, base and lower side of tibia, and tarsus blackish brown to black. Mid and hind legs black with upper side of mid tibia white.

Holotype ♀ (BISHOP 6676), Wau, Morobe District, 1200 m, NE New Guinea, 5.X.1962, malaise trap, J. Sedlacek.

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