

LACEBUGS FROM NEW GUINEA, BORNEO, SOLOMONS, AND OTHER ISLANDS OF THE SOUTH PACIFIC AND INDIAN OCEANS (Hemiptera: Tingidae)

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Abstract: The distribution of 74 species, representing 44 genera, of Tingidae is discussed. Described as new are the 6 genera *Aeopelys*, *Leptoptyx*, *Aeithauma*, *Aepykorys*, *Ceocharis*, *Cetiothucha*; one subgenus *Agramma* (*Aexiloma*), and 29 species: *Malala charieis*, *Phatnoma ainata*, *Aeopelys neata*, *Agramma* (*Aexiloma*) *agasma*, *Physatocheila aeuthes*, *Physatocheila empheres*, *Cysteochila prata*, *Cysteochila euthenia*, *Ulonemia ermaea*, *Ulonemia aota*, *Belenus eupetes*, *Eteoneus megistus*, *Trachypeplus apistus*, *Leptoptyx atopia*, *Leptoptyx icelia*, *Agaotingis ania*, *Diplocysta thaleia*, *Aeithauma aliona*, *Aepykorys proekes*, *Leptopharsa dieides*, *Leptopharsa aporia*, *Leptopharsa euprines*, *Stephanitis othnius*, *Stephanitis anapetes*, *Oeocharis apeuthes*, *Nesocypselas ecpalga*, *Xenotingis tinae*, *Cetiothucha physalia*, *Ypsotingis chleina*.

The lacebugs of New Guinea and other islands of the South Pacific and Indian Oceans possess paradoxes and surprises unparalleled in any other oceanic or even continental region. Many of the curiosities are impossible to represent by words written or spoken. To verify, observe the almost wayward species depicted in figures 2, 3, 14, 16, 17, 23, and 26. And at the same time, keep in mind that no extensive collections have as yet been made on numerous islands or even island groups in some areas. New Guinea, the largest tropical and second largest island in the world, is poorly represented by collections from the deep interior and high mountain regions.

This paper treats a total of 74 species segregated into 44 genera. Six genera, 1 subgenus and 29 species are described as new; also included is a new synonymy. Many species were netted by 'sweeping' or taken 'at light', and thus host plant records are scant. To assist in identification, 26 species are illustrated in dorsal aspect. Species bearing huge hoods, either of collar (collum) or paranotal origin, are also depicted in lateral aspect in their respective illustration.

Only the more essential references are cited for common and widely known species. For complete bibliographic references to genera and species, see the catalog of the lacebugs of the world by Drake & Ruhoff (1965). The latter also includes original keys to higher classification. We have followed this hierarchical system.

The structural measurements were made under a stereoscopic microscope with eyepiece micrometer divided in 100 units and then recorded in micro-units (80 units=1 mm) in species descriptions. The length and breadth of the body are transcribed in millimeters.

The types (holotype and allotype) are stored in Bishop Museum, Honolulu, along with most of the other specimens.

Acknowledgement: We express here our most grateful appreciation for assistance to Dr J. Linsley Gressitt and staff, Bernice P. Bishop Museum, for tingid collections from the many islands mentioned in the notes and descriptions. The fine illustrations were executed by artists Elsie L. Froeschner, Arlington, Va., Caroline Lutz, Washington, D. C., and Tina Abbott, Washington, D. C. The project was supported in part by National Science Foundation Grant GB-791 (201D-325) for which we are most thankful. Field work which produced the collection was largely supported by grants to Bishop Museum from the National Science Foundation under the project "Zoogeography and Evolution of Pacific Insects."

Subfamily CANTACADERINAE Stål

Tribe Cantacaderini Stål

Cantacader quinquecostatus (Fieber)

Taphrosthethus quinquecostatus Fbr., 1844: 41, pl. 3, figs. 18-22.

Monanthia subovata Motschulsky, 1863: 91.

Cantacader quinquecostatus: Stål, 1873: 117.—Distant, 1903b: 123, fig. 88.—Drake, 1960: 341, fig. 1.

DISTRIBUTION: India, Ceylon, Burma, Java, Sumatra, New Guinea, Malaya, Penang, Philippine Is., Palau Is.

NEW RECORDS: SE NEW GUINEA (Papua): Kokoda-Pitoki, 450 m, 24-29.III.1959, light trap, Gressitt. NE NG: Karimui, S of Goroka, 1000 m, 8.VI.1961, J. L. & M. K. Gressitt. NW NG: Nabire, S Geelvink Bay, 1-20 m, 3.VII.1962, light trap, Gressitt. NEW BRITAIN: Wunung Pl't'n., Jacquinot Bay, 30.IV.1956, Gressitt; Volupai, Willaum Pen., 100 m, 16.IV.1956, light trap, Gressitt; Malmalwan-Vunakanau, Gazelle Pen., 5-12.V.1956, light trap, Gressitt.

Tribe Phatnomini Drake and Davis

Malala charieis Drake and Ruhoff, n. sp. Fig. 1.

NE NEW GUINEA: Adelbert Mts, Wanuma.

Small, oblong, brownish testaceous with pronotal disc, head, including cephalic spines, blackish fuscous, shiny; abdomen beneath dark brown, sternum blackish. Legs brownish. Antennae with segments I and II dark fuscous, both very short, latter scarcely reaching to apex of head, III almost 3× as long as IV. Length 2.15 mm, width 0.94 mm.

Head long, considerably produced in front of eyes, armed with 3 short, stout, blunt, erect, tubercular spines; bucculae areolate, ends separated in front. Antenniferous tubercles fairly stout, spiniform. Rostrum long, extending to end of sternal sulcus; laminae of labial canal uniseriate, open behind. Legs slender, brownish, tarsi slender. Orifice and channel of metasternal scent glands imperceptible on either metapleuron. Hypocostal lamina uniseriate.

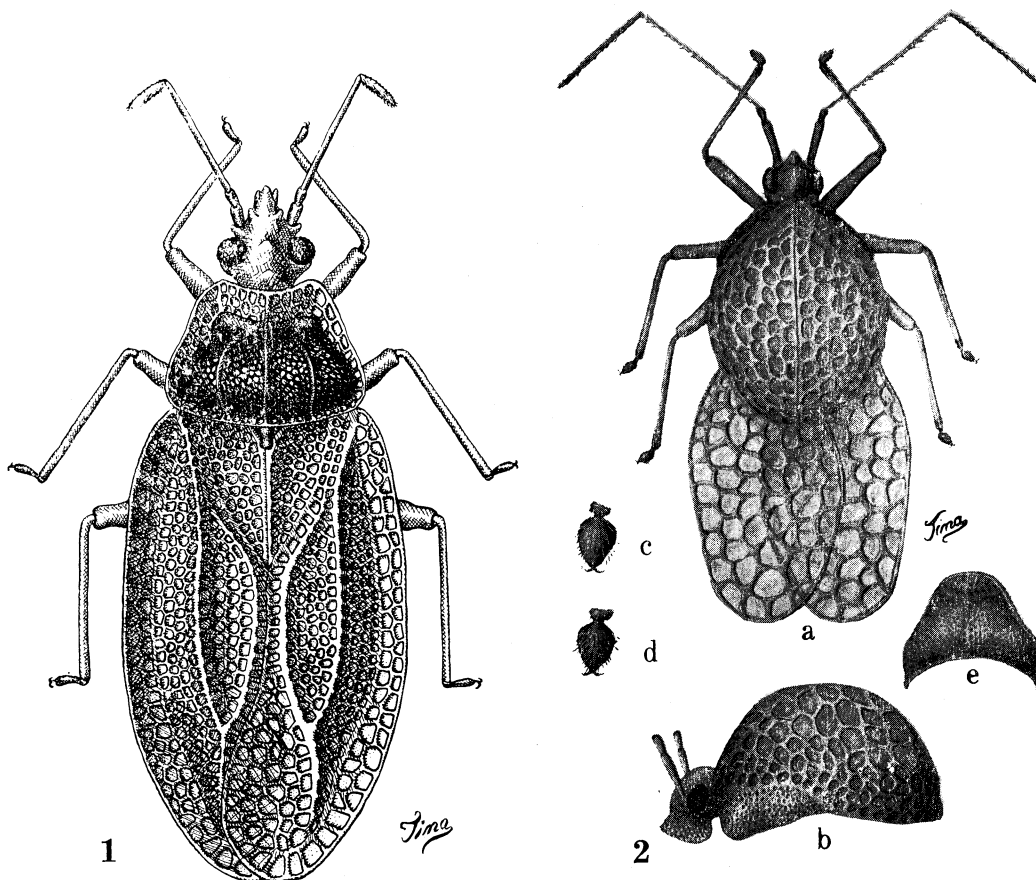
Pronotum moderately convex, reticulately punctate, hind margin short, slightly obtusely round, not covering scutellum or clavi of elytra, low, tricarinate; median carina slightly more elevated than lateral pair, percurrent; lateral carinae distinct, terminating in front

at calli, nearly parallel; paranotum narrow, obliquely upright, 1 areolae wide opposite humerus, then 2 deep opposite callus. Scutellum small, blackish fuscous, exposed; collar narrow, mostly testaceous.

Elytra with sharply defined clavi, together triangular in outline, distinctly areolate; costal area moderately wide, composed of 2 fairly regular rows of small, rounded areolae; subcostal area wider than costal area, sloping slowly downward, composed largely of 3 rows of areolae, areolae not very clearly outlined and difficult to see individually; discoidal area narrow, 3 areolae deep in widest part, extending backwards far beyond middle of elytra, in front with outer and inner boundary veins coalescing almost opposite middle of clavus; sutural areas slightly overlapping each other with apices resting jointly rounded in repose.

Holotype macropterous ♀ (BISHOP 3842), Adelbert Mts, Wanuma, 800-1000 m, NE New Guinea, 26. X. 1958, Gressitt.

This is the first record for the Ceylonese genus *Malala* Distant in New Guinea. *M.*



Figs. 1-2. 1, *Malala charieis*, n. sp.; 2, *Holophygdon melanesica* Kirkaldy: a, dorsal aspect of adult; b, lateral view of pronotum; c, dorsal view of hind tarsus; d, ventral view of hind tarsus; e, pronotum with hood removed.

charieis is larger than *M. bulliens* Distant of Ceylon and India, and has smaller antenniferous tubercles, darker black markings, and areolae not sharply defined in subcostal areas. These species belong to Cantacaderinae, Phatnomini (elytra without stenocostal area).

Phatnoma ainata Drake and Ruhoff, n. sp.

NW NEW GUINEA: Hollandia. SOLOMON IS.: Guadalcanal, Poha River.

Broad, obovate, testaceous with scattered veinlets in elytra and paranota brown. Antennae brownish, inconspicuously pubescent. Legs brown with some whitish marks on tibiae; tarsi slender. Length 3.80 mm, width (elytra) 1.95 mm.

Head long, more than 2× as long as transocular width, greatly produced in front of eyes, armed with 7 long, stout spines; hind pair longest, appressed; fore and median pairs porrect, the median spines between latter 2 pairs very stout; bucculae very long, mostly 2 areolae deep, anterior ends meeting a little in front of labium. Antennal tubercles short, spiniform, each with a blunt apex. Antennae very slender, I very short, slightly longer and thicker than II; measurements: segment I, 8; II, 6; III, 78; IV, 16. Rostrum very long, surpassing metasternum by 2 abdominal segments; sulcus of rostral laminae whitish, uniseriate, present on all 3 sternal divisions, open behind; abdomen beneath with a distinct, impressed, median, longitudinal furrow on 1st 5 sternites.

Pronotum broad, transversely convex between humeri, reticulately punctate, unicarinate, not extending backwards so as to cover scutellum; median carina percurrent, raised but not clearly areolated; lateral carinae completely absent; collar long, with 4 transverse rows of areolae not clearly outlined; paranotum narrow, 1 areolae deep opposite callus, slightly surpassing fore margin of collar, distinctly concave at latero-anterior angle. Ostiole and ostiolar canal present on each metapleuron.

Elytra much wider and much longer than abdomen, obovate with bases truncate, apices jointly rounded in resting posture; costal area very wide, with areolae somewhat confused and not arrayed in regular rows, 7-9 areolae deep at base, then 5-6 wide in apical part; subcostal area wide, subequal in width to costa, 6-7 areolae deep, the areolae of costal, subcostal, and other division mostly subequal in size; discoidal area narrow, very long, about 3/4 as long as elytron, with inter-boundary vein costate; sutural area narrow; adventitious cross veins low, poorly developed in all areas.

Holotype ♂ (Drake coll., USNM), Hollandia, NW New Guinea; allotype ♀ (BISHOP 3843), Poha River, Guadalcanal, 5 m, Solomon Is., 20. VI. 1956, Gressitt.

The subovate form, without lateral projections on paranota, and unicarinate pronotum separate this species from other members of the genus.

Phatnoma veridica Drake and Maa

Phatnoma takasago (nec Takeya): Drake, 1950: 156.

Phatnoma veridica Drake & Maa, 1955: 2.—Drake, 1956: 107, fig. 2.

DISTRIBUTION: New Guinea, Palau Is., Caroline Is.

NEW RECORDS: NW NEW GUINEA: Bodem, 100 m, 11 km SE of Oerberfaren, 7-17. VII.1959, Maa; Cyclops Mts, W. Sentani, Hollandia area, 150-250 m, 22.VI.1959, sweeping, Maa. NE NG: Amok, 165 m, 6. I. 1960, Maa; Nondugl, Ahl V., 1750 m, 8.VIII.1955, Gressitt; Maprik, 160 m, 15. X. 1957, Gressitt.

Subfamily TINGINAE Laporte

Tribe Litadeini Drake and Ruhoff (in press)

Holophygdon melanesica Kirkaldy Fig. 2a-e.

Holophygdon melanesica Kirk., 1908a: 364, pl. 4, figs. 10, 11.—Drake & Poor, 1943: 205.—
Drake & Davis, 1960: fig. 58.

On account of the greatly swollen 2nd tarsal segment of all legs, the Fijian genus *Holophygdon* Kirkaldy is here transferred from the tribe Tingini to the tribe Litadeini Drake & Ruhoff (in press). The general aspect, laminar formations of the paranotal hood, greatly abbreviated hind margin of pronotum, and the modified elytral divisions are portrayed in the illustrations. Our specimens are all from the Fijian Islands of Viti Levu and Ovalau.

Genus **Aeopelys** Drake and Ruhoff, n. gen.

Head very short, feebly produced in front of eyes, convex above, unarmed; bucculae short, narrow, straight, open in front, non-reticulate. Rostrum short, extending between fore coxa in repose; sternal laminae of rostral sulcus, low, ridge-like, non-areolate. Antennae moderately long, slender; segment I stouter and slightly longer than II; III slenderest, more than 2× as long as IV, the latter fusiform. Legs moderately long; femora slightly bowed; all tarsi with segment II very broad, large, cordate, each with inferior surface concave and abundantly supplied with short, bristly hairs; superior surface convex, only sparsely setose.

Pronotum considerably swollen, totally hidden (save collar) from observation by the enormous, completely reflexed paranota with touching surfaces overspreading the total pronotal surface, including backward projection of hind margin, and their outer margins meeting lengthwise along entire median line; carinae, if present, totally concealed by reflexed paranota. Elytra longer but not much wider than abdomen; sutural areas overlapping each other so as to lie jointly rounded apically in resting position, divided into the usual divisions; discoidal areas large, each extending backwards beyond middle of elytron; hind pair of wings present, not much longer than abdomen, functional. Hypocostal area uniseriate. Ostiole and ostiolar canal present on each metapleuron.

Type species: *Aeopelys neata*, n. sp.

This genus belongs to the tribe Litadeini Drake & Ruhoff (in press), subfamily Tinginae, which have the 2nd tarsal segment of all legs greatly widened, each of which is as wide or wider than apex of tibia, and distinctly concave beneath (fig 3d). The concavity is thickly covered with short, dark, bristly hairs. The reflexed paranota, which totally cover all parts (except collar) of the pronotal surface, are features singular to this genus. As we possess only one specimen, the paranota were not lifted up so as to describe the carinae and other characteristics of the pronotal surface.

Aeopelys neata Drake & Ruhoff, n. sp. Fig. 3a-d.

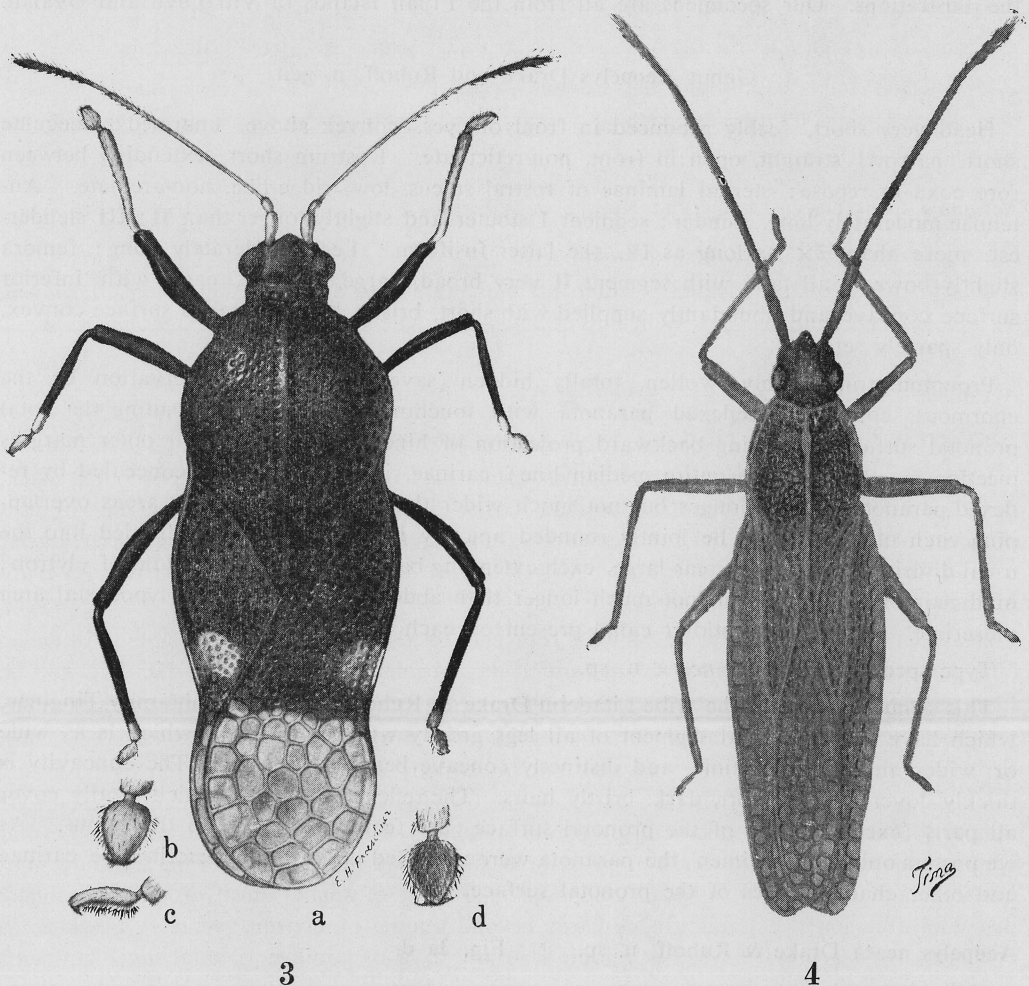
SW NEW GUINEA: Bomberi, Vogelkop.

Head, paranota, body beneath ebony black, shiny; elytra black, rather dull, with a rounded spot in apical part of each discoidal area ivory white, and distal 1/3 of elytra

pale brownish. Areolae, except in pale marks of elytra, intransparent. Antennae testaceous with segment IV black. Legs with apical part of coxae and trochanters ivory white; tips of tibiae brownish testaceous; tarsi brown. Length 3.28 mm, width (elytra back of pronotal process) 1.15 mm.

Head distinctly convex between eyes, very short. Antennal tubercles small, rounded in front. Antennal measurements: segment I, 14; II, 9; III, 80; IV, 36.

Pronotum greatly swollen, totally concealed by the enormous, fully reflexed paranota, each of which lies flat and completely outstretched. Elytra slightly hollowed behind middle, smooth; costal area very narrow, uniseriate; subcostal area vertical, narrow, mostly biseriate; discoidal area wide, narrow at base and apex, widest near middle, there 8-9



Figs. 3-4. 3, *Aeopelys neata*, n. sp.: a, dorsal aspect of adult; b, dorsal view of hind tarsus; c, lateral view of hind tarsus; d, ventral view of hind tarsus; 4, *Agramma (Aexiloma) agasma*, n. sp.

areolae wide; sutural area on same horizontal level as discoidal area. Hind wings visible, clear, functional. Legs moderately long, femora only slightly swollen, feebly bowed; tarsi and other structures as mentioned in generic description.

Holotype macropterous ♂ (BISHOP 3844), Bomberai, SW Vogelkop, 700-900 m, SW New Guinea, 8. VI. 1959, J. L. Gressitt, illustrated.

The color and markings, and the extremely large reflexed paranota set this strange species apart from all other lacebugs. The holotype and upper and under surfaces of one tarsus are illustrated.

Tribe Tingini Laporte

Agramma (*Agramma*) *sedale* (Drake)

Serenthia sedalis Drake, 1927a: 312.—Drake & Poor, 1937a: 2; 1937b: 397.

DISTRIBUTION: Philippine Is., Ceylon, Java.

NEW RECORDS: SABAH (N. Borneo) (SE): Forest Camp, 19 km N of Kalabakan, 30. XI. 1962, Y. Hirashima.

Agramma (*Aexiloma*) Drake and Ruhoff, n. subgen.

Type: *Agramma* (*Aexiloma*) *agasma*, n. sp.

Due to the areolated paranota, which are not present in any other species of *Agramma*, we are here erecting the new subgenus *Aexiloma* for the reception of *A. agasma*, n. sp.

Agramma (*Aexiloma*) *agasma* Drake and Ruhoff, n. sp. Fig. 4.

NE NEW GUINEA: Dreikikir, Sepik Distr.; Goroka-Kabebe.

Elongate, very slender, slightly brownish testaceous; head black, shiny; pronotum black, shiny, with fore margin of collar, median carina, anterior 1/2 of each triangular process of pronotum pale testaceous; bucculae black with inferior and hind margins testaceous; rostrum brown. Antennae and legs slightly brownish testaceous. Rostrum brown. Length 2.50 mm, width (elytra) 0.72 mm.

Head short, unarmed; bucculae with fore ends meeting in front of labium. Antennae long, inconspicuously pubescent, measurements: segment I, 20; II, 10; III, 58; IV, 22. Legs slender, femora only slightly thickened.

Pronotum moderately convex, reticulately punctate with triangular process areolate, unicarinate; median carina long, elevated but indistinctly areolated; collar mostly triseriate, the basal row not clearly visible; paranota narrow, fuscous opposite each callus, testaceous anteriorly, areolae very distinct; propleura areolate. Elytra narrow, extending beyond apex of abdomen; costal area composed of a single row of clear, quadrate areolae; subcostal area wider, nearly vertical, composed of 3 rows of small, mostly rounded areolae; discoidal area long, extending backwards beyond middle of elytron, acutely angulate at each end, 4 to 5 areolae wide at middle; sutural area on same horizontal level but with areolae larger than in discoidal area. Hypocostal lamina uniseriate. Hind wings clear, longer than abdomen.

Holotype macropterous ♀ (BISHOP 3645), Dreikikir, Sepik Distr., 400 m, NE New Guinea.

22.VI.1961, J. L. & M. K. Gressitt, figured. A mutilated specimen (pronotum with paranota) Goroka-Kabebe, 1800 m, 20.VI.1955, Gressitt.

The clearly represented paranota separate this species from all members of the nominate subgenus.

Physatocheila acuthes Drake and Ruhoff, n. sp. Fig. 5.

NE NEW GUINEA: Adelbert Mts, Wanuma. NEW BRITAIN: Keravat. SABAH (N. Borneo): Tenompok.

Moderately large, oblong, brownish testaceous with head and pronotal disc brown, body beneath reddish brown. Legs reddish brown. Antenna testaceous often with segments I and IV dark fuscous. Elytra with apices of discoidal areas and outer boundary veins brown to dark fuscous. Legs reddish brown with femora darker. Length 3.25 mm, width (elytra) 1.15 mm.

Head very short, armed with 5, moderately long, testaceous spines, the frontal 3 spines porrect and basal pair appressed; bucculae areolate, closed in front. Rostrum long, reaching to end of sulcus; laminae of rostral channel uniseriate, testaceous, parallel-sided, open behind. Antennae long, slender, smooth, measurements: segment I, 12; II, 10; III, 82; IV, 28. Ostiole and ostiolar canal of metathoracic scent glands prominent on each metapleuron.

Pronotum moderately convex, punctate, reticulate on backward projection, tricarinate, all 3 carinae uniseriate; median carina slightly more elevated on pronotal disc; lateral carinae slightly convergent anteriorly, terminating in front near middle of pronotal disc; collar (hood) raised, obtusely tectate, 3 or 4 areolae long; paranotum biseriate, completely reflexed (3 rows instead of 2 of areolae on right side in type). Elytra narrow, with apices overlapping and jointly rounded; costal area narrow, uniseriate; subcostal area vertical, mostly biseriate, areolae small; discoidal area extending backwards beyond middle of elytra, acutely angulate at each end, widest near middle, there 4 or 5 areolae deep. Hind wings functional.

Holotype macropterous ♀ (BISHOP 3846), Adelbert Mts, Wanuma, 800-1000 m, NE New Guinea, 23.X.1958, Gressitt; allotype ♂, Keravat, New Britain, 20-25.XI.1959, Maa. Paratype, Tenompok, 48 km E of Jesselton, 1460 m, Sabah (N. Borneo), 17-18.X.1958, Maa & Quate.

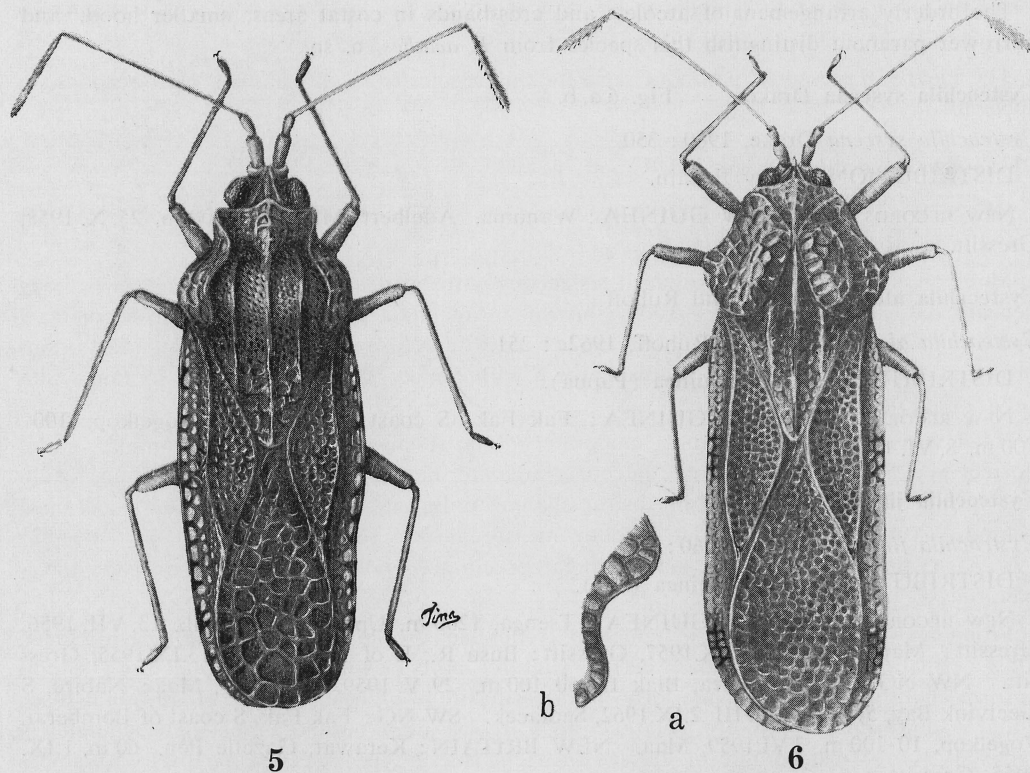
Distinguished from *P. empheres* n. sp., by the serriation not arranged in orderly sequence and without crossbands in costal areas.

Physatocheila empheres Drake and Ruhoff, n. sp.

NE NEW GUINEA: Wau, Morobe Distr.

Moderately large, oblong, testaceous with head black, cephalic spines testaceous, pronotal disc brownish, body beneath brown, elytra with median and subapical crossbands fuscous. Legs brownish. Hind wings fumose. Antenna with segments I and II brown, other 2 missing. Length 3.25 mm, width (elytra) 1.08 mm.

Head very short, armed with 5 spines, the anterior 3 porrect and hind pair appressed; bucculae areolate, closed in front. Rostrum barely reaching base of metasternum; sternal laminae of rostral sulcus uniseriate, parallel on mesosternum, wider and cordate on meta-



Figs. 5-6. 5, *Physatocheila aeuthes*, n. sp.; 6, *Cysteochila syscena* Drake: a, dorsal aspect of adult; b, lateral view of median carina.

sternum, with V-shaped opening behind. Ostiole and ostiolar canal with prominent sulcus on each metapleuron. Legs slender, femora not much swollen.

Pronotum moderately convex, pitted, reticulate on backward projection, tricarinate, all carinae areolate; median carina more elevated than lateral pair, not sharply arched on pronotal disc; paranota moderately wide, reflexed, each slightly raised along outer side; space between outside margin of paranotum and median carina subequal to that between either lateral and median carinae; hood small, compressed on sides, 2 areolae wide on top and 3 or 4 long, truncate in front.

Elytra not much longer than abdomen, almost parallel-sided with apices jointly rounded in resting posture; costal area narrow, biseriata, with areolae nearly equal in size and serially arranged in neat rows; subcostal area almost vertical, biseriata, narrower than costal area; discoidal area extending backwards beyond middle of elytron, acutely angulate at each end, widest near middle, there 5 or 6 areolae deep; sutural area on same horizontal level as discoidal area, the areolae becoming larger beyond the middle. Hind wings functional.

Holotype macropterous ♂ (BISHOP 3847), Wau, Morobe Distr., 1200 m, NE New Guinea, 7-10.X.1962, J. Sedlacek.

The orderly arrangement of areolets and crossbands in costal areas, smaller hood, and narrower paranota distinguish this species from *P. aeuthes*, n. sp.

Cysteochila syscena Drake Fig. 6 a, b.

Cysteochila syscena Drake, 1960: 350.

DISTRIBUTION: New Britain.

NEW RECORDS: NE NEW GUINEA: Wanuma, Adelbert Mts, 800-1000 m, 25. X. 1958, Gressitt.

Cysteochila aletheia Drake and Ruhoff

Cysteochila aletheia Drake & Ruhoff, 1962c: 251.

DISTRIBUTION: New Guinea (Papua).

NEW RECORDS: SW NEW GUINEA: Fak Fak, S coast of Bomberai, Vogelkop, 100-700 m, 8. VI. 1959, Gressitt.

Cysteochila jimmina Drake

Cysteochila jimmina Drake, 1960: 349.

DISTRIBUTION: New Guinea (NE).

NEW RECORDS: NE NEW GUINEA: Tsenga, 1200 m, Upper Jimmi Vall., 13. VII. 1956, Gressitt; Maprik, 160 m, 15. X. 1957, Gressitt; Busu R., E of Lae, 100 m, 13. IX. 1955, Gressitt. NW NG: Mangrowawa, Biak I., 50-100 m, 29. V. 1959, sweeping, Maa; Nabire, S Geelvink Bay, 5-50 m, 25. VIII-2. IX. 1962, Sedlacek. SW NG: Fak Fak, S coast of Bomberai, Vogelkop, 10-100 m, 3. VI. 1959, Maa. NEW BRITAIN: Kerawat, Gazelle Pen., 60 m, 1. IX. 1955, Gressitt.

Cysteochila consanguinea (Distant)

Bredenbachius consanguineus Dist., 1909a: 118.

Cysteochila consanguinea: Drake & Poor, 1936: 439.

DISTRIBUTION: Burma, India, Hainan I.

NEW RECORDS: SOLOMON IS.: Malaita, Tangtalau, 150-200 m, 26. IX. 1957, Gressitt.

Cysteochila idonea Drake

Cysteochila idonea Drake, 1956: 109, fig. 4; 1960: 345, fig. 5.

DISTRIBUTION: Kusaie, Solomon Is., New Guinea (NE).

NEW RECORDS: NE NEW GUINEA: Busu R., E of Lae, 100 m, 13. IX. 1955, Gressitt. SE NG (Papua): Daradae Pt'n, 500 m, 80 km N of Port Moresby, 6. IX. 1959, sweeping, Maa.

Cysteochila nativa Drake

Cysteochila nativa Drake, 1960: 347, fig. 7.

DISTRIBUTION: New Guinea (NE).

NEW RECORDS: NW NEW GUINEA: Waris, S of Hollandia, 450-500 m, 1-2. VIII. 1959, Maa; Ifar, Cyclops Mts, 300 m, 22. VI. 1959, Maa. NE NG: Karimui, S of Goroka, 1000 m,

8.VI.1961, J. L. & M. K. Gressitt. NEW BRITAIN: Kerawat, Gazelle Pen., 60 m, 1.IX.1955, Gressitt.

Cysteochila prata Drake and Ruhoff, n. sp. Fig. 7.

NE NEW GUINEA: Minj. NW NG: Wisselmeren, Duroto; Bokondini.

Moderately large, brown with pronotal disc, median part of each paranotum, transverse band in each costal area spreading inward over most of discoidal area, narrow subapical band in costal area, and almost entire discoidal area dark fuscous. Body beneath brown, the laminae of sternal sulcus testaceous with V-shaped opening behind. Legs testaceous with tarsi slender and dark. Length 2.50 mm, width (elytra) 1.07 mm.

Head very short, scarcely produced in front of eyes, armed with 5, short, brown spines; eyes moderately large, black; bucculae areolate, closed in front. Antennae slender, with sparsely scattered, scale-like, golden pubescence, measurements: segment I, 8; II, 6; III, 68; IV, 28. Rostrum extending to middle of mesosternum in repose.

Pronotum moderately convex, punctate, areolate in triangular projection, tricarinate; all carinae prominent, each more or less areolate, the areolae tiny; lateral carinae slightly divergent posteriorly; hood small, truncate in front, projecting backwards between calli to front margin of pronotal disc; paranota very large, each almost covering its respective side of pronotum up to lateral carina, longitudinally ridged near outer margin. Legs moderately long, all tarsi slender. Metathoracic scent gland with ostiole and ostiolar channel on each metapleuron.

Elytra divided into the usual division, a little longer than abdomen; costal area moderately wide, mostly biseriate, sometimes with inner row irregular in arrangement with some cells tiny or at times missing; subcostal area nearly vertical, subequal to costa in width, biseriate; discoidal area large, 2/3 as long as elytron, acutely angulate at base and apex, widest a little behind middle (there 6-7 areolae wide); sutural area large, entirely fuscous, the areolae subequal in size to those in discoidal area. Hind pair of wings slightly shorter than elytra, densely clouded with dark fuscous.

Holotype macropterous ♂ (BISHOP 3848), Minj, W Highlands, NE New Guinea, 8-13.IX.1959, Maa; allotype macropterous ♀, Bokondini, 40 km N of Baliem Vall., 1300 m, NW New Guinea, 5-11. XI. 1961, Quate. Paratypes: 1 ♀ taken with allotype, and 1 ♂, Wisselmeren, Duroto, E of Enarotadi, 1800 m, NW New Guinea, 21.VIII.1955, Gressitt.

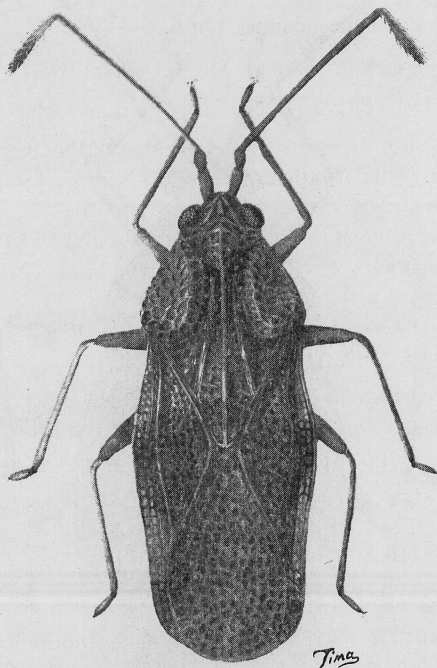


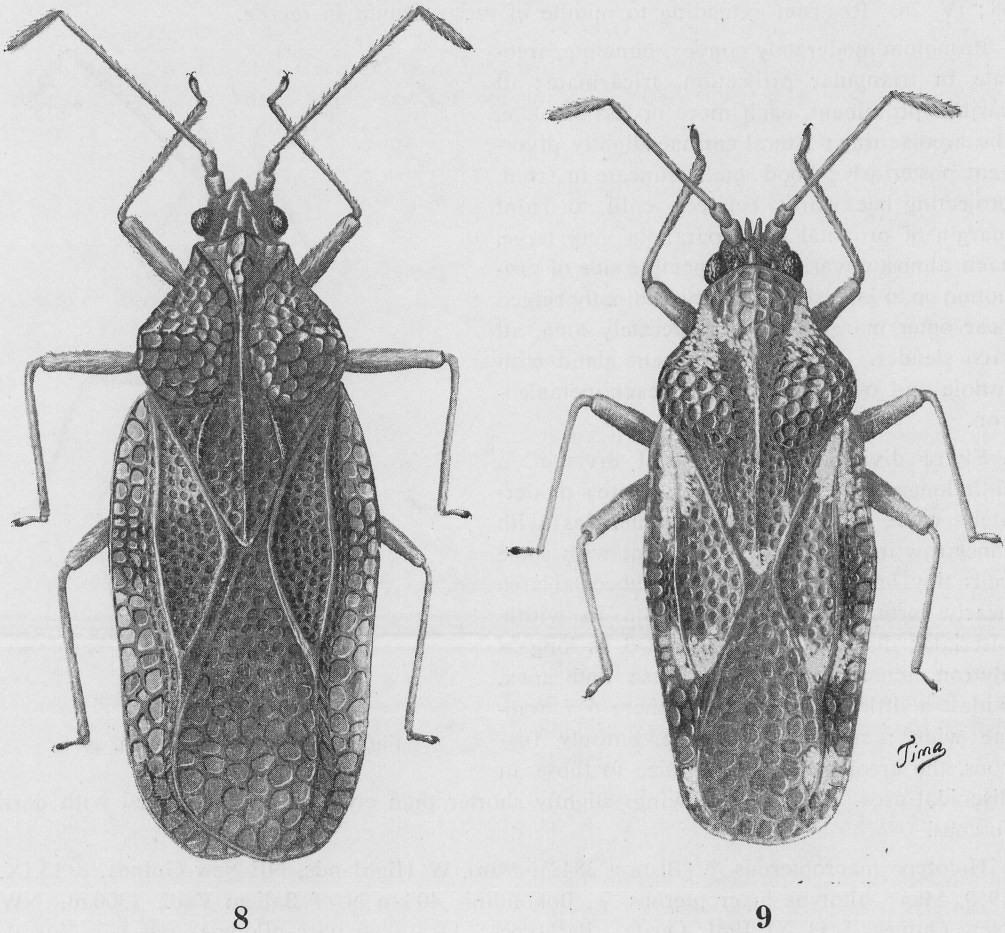
Fig. 7. *Cysteochila prata*, n. sp.

***Cysteochila euthenia* Drake and Ruhoff, n. sp.** Fig. 8.

SABAH (N. Borneo): Tenompok.

Testaceous to brownish testaceous with veinlets on posterior 1/2 of paranotum, pronotal carinae, premedian band in each costal area, and entire sutural areas dark fuscous; pronotal disc beneath reflexed, paranota reddish brown; hood testaceous. Legs brownish with tarsi darker. Antenna brownish with segment IV dark. Rostrum brown with sternal laminae of sulcus testaceous. Length 3.25 mm, width 1.25 mm.

Head very short, armed with 5, moderately large, pale spines; bucculae areolate, closed in front. Rostrum reaching to middle of mesosternum; sternal laminae of sulcus uniseriate, open behind. Antenna long, slender, measurements: segment I, 16; II, 10; III, 84; IV, 30. Pronotum moderately convex, pitted, tricarinate; median carina long, considerably raised, composed of 1 row of moderately large areolae; lateral carinae less elevated than median,



Figs. 8-9. 8, *Cysteochila euthenia*, n. sp.; 9, *Cysteochila bakeri* Drake & Poor.

converging anteriorly, very low and concealed beneath paranota on pronotal disc, there composed of tiny cells and running close to median carina, terminating near hood, areolae behind paranotum a little smaller than those in median carina; paranota very large, each reflexed on pronotal surface, transversely elevated across humerus; hood long, more than $2\times$ as long as high, tectate, extending backwards up to fore margin of pronotal disc.

Elytra wider and longer than abdomen; costal area wide, composed of 2 rows of large clear areolae; subcostal area vertical, narrower than costal area, biseriate; discoidal area large, extending backwards beyond middle of elytron, acutely angulate at each end, widest at middle, there 5 areolae deep; sutural area large, on same horizontal level as discoidal area; hypocostal ridge uniseriate. Hind pair of wings longer than abdomen, densely clouded with fuscous. Metathoracic scent glands with ostiole and prominent sulcus on each metapleuron.

Holotype ♂ (BISHOP 3849), Tenompok, Sabah (N. Borneo), 13.II.1959, Maa; allotype ♀, same locality, 10-14.II.1959. Paratypes: numerous specimens, all from same locality, 10-15.II.1959. All specimens macropterous.

The color marking, paranotum at each humeral angle, and scattered pale hairs on dorsal surface distinguish this species from other members of the genus in the Malay Archipelago.

Cysteochila bakeri Drake and Poor Fig. 9.

Cysteochila bakeri Drake & Poor, 1937a: 9.

DISTRIBUTION: Philippine Is.

NEW RECORDS: SABAH (N. Borneo): Sandakan Bay (SW), Sapagaya Lumber Camp, 2-20 m, 6. XI. 1957, Gressitt.

Eritingis recens (Drake and Poor) Fig. 10.

Perissonemia (Ulonemia) recentis Drake & Poor, 1937a: 5.

Ulonemia recens: Drake, 1947a: 229.

Eritingis recens: Drake & Ruhoff, 1962b: 497, fig. 3.

DISTRIBUTION: Singapore, Viet Nam.

NEW RECORDS: NW NEW GUINEA: Waris, S of Hollandia, 450-500 m, 8.VIII.1959, light trap, Maa; Bokondini, 40 km N of Baliem Vall., 1300 m, 5-11. XI. 1961, light trap, Quate. NE NG: Wanuma, Adelbert Mts, 800-1000 m, 26.X.1958, Gressitt. SE NG (Papua): Laloki, near Port Moresby, 30.VII-2.IX.1959, Maa; Brown R., 10 m, near Port Moresby, 5.X. 1958, Gressitt. NEW BRITAIN: Gazelle Pen., Mt Sinewit, 900 m, 5-14.XI.1962, light, Sedlacek. SABAH (N. Borneo): Tenompok, 13.II.1959, Maa.

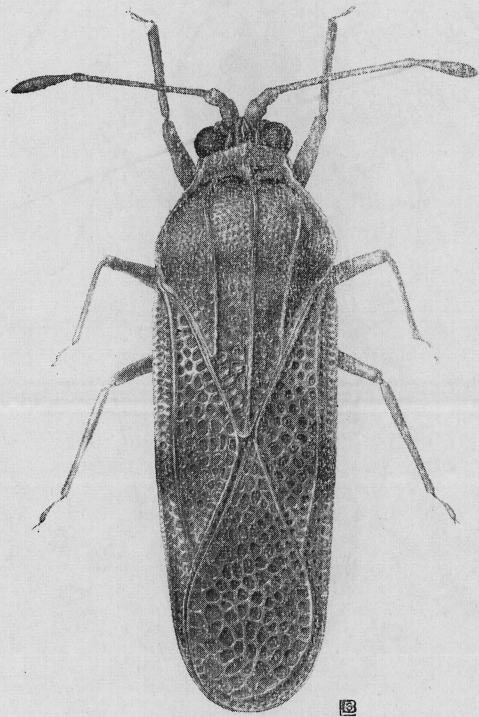


Fig. 10. *Eritingis recens* (Drake & Poor).

Eritingis pacifica (Kirkaldy)*Teleonemia pacifica* Kirk., 1908b: 780.*Ulonemia pacifica*: Drake & Poor, 1943: 193.*Eritingis pacifica*: Drake & Ruhoff, 1962b: 497.

DISTRIBUTION: Fiji Is.

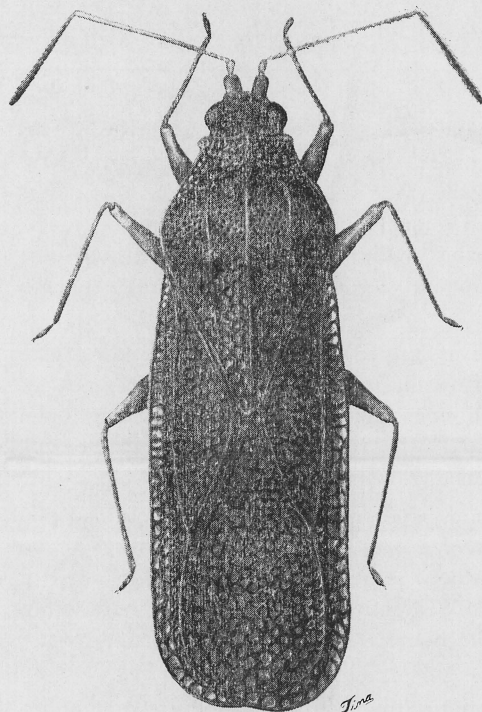
NEW RECORDS: NEW BRITAIN: St. Paul's, Bainings, Gazelle Pen., 350 m, 4. IX. 1956, Gressitt.

Ulonemia ermaea Drake and Ruhoff, n. sp. Fig. 11.

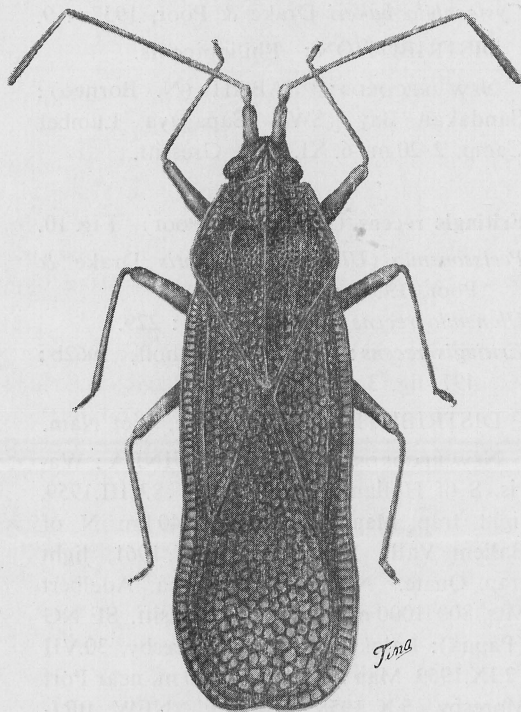
NE NEW GUINEA: Wanuma, Adelbert Mts.

Long, more than 3× as long as wide, nearly parallel-sided. Black-fuscous with pronotal disc darker, moderately shiny. Antenna brownish testaceous with terminal segment black, clothed with pale pubescence. Legs brownish testaceous with tarsi dark. Body beneath black. Length 4.75 mm, width 1.50 mm.

Head very short, slightly produced in front of eyes; dorsal spines very short, blunt, tubercular, testaceous; bucculae brown, areolate, closed in front. Antenna long, slender, inconspicuously pubescent, measurements: segment I, 20; II, 10; III, 120; IV, 84. Rostrum



11



12

Figs. 11-12. 11, *Ulonemia ermaea*, n. sp.; 12, *Ulonemia aota*, n. sp.

brown, reaching to middle of mesosternum. Legs brownish testaceous, smooth; tarsi slender, dark. Metasternal scent glands with orifice and sulcus on each metapleuron.

Pronotum rather strongly convex, distinctly punctate, areolate on backward projection; tricarinate, all carinae raised, uniseriate, the areolae tiny; median carina percurrent, scarcely higher than lateral pair; lateral carinae terminating at calli, each concave within on fore part of pronotal disc; hood small, not produced in front, extending backwards between calli, campanulate, veinlets dark fuscous; paranota reflexed upward, narrow, each composed of 1 row of areolae. Elytra not much wider than abdomen, extending backwards considerably beyond abdominal apex; costal area narrow, uniseriate from base to middle, then apically biseriate; subcostal area narrow, upright, mostly biseriate; discoidal area very large, extending backwards beyond middle of elytron, acutely angulate at base and apex, widest near middle, there 7-8 areolae deep; sutural area large, on same horizontal level as discoidal area. Hypocostal ridge uniseriate. Hind wings not much longer than abdomen, fumose.

Holotype macropterous ♂ (BISHOP 3850), Wanuma, Adelbert Mts, 800-1000 m, NE New Guinea, 27. X. 1958, Gressitt.

Differs from *U. aota*, n. sp., by its longer and narrower body, uniseriate paranota, and wider costal areas, each of latter biseriate in distal 1/2. This species and *U. aota* are somewhat atypical of *Ulonemia* as noted in the following species.

***Ulonemia aota* Drake and Ruhoff, n. sp. Fig. 12.**

SW NEW GUINEA: Fak Fak, Vogelkop.

Elongate, nearly parallel-sided, slightly more than 3× as long as wide, blackish fuscous with pronotal disc and head deep black, shiny; outer marginal veins of paranota, elytra and those separating elytral divisions thicker and darker than veinlets forming the boundaries of areolets. Antennae pale brown with segment IV black, clothed with pale pubescence. Legs smooth, pale brown. Bucculae blackish, each with inferior margin and hind part brownish testaceous. Body beneath black with pronotal sternum black and shiny. Length 4.50 mm, width 1.50 mm.

Head very short, scarcely produced in front of eyes, armed with 5 short spines; bucculae blackish, fore ends meeting in front of labium. Rostrum brown with apex black, extending to middle of mesosternum; rostral sulcus with sides raised, uniseriate, testaceous, open behind. Metathoracic scent glands with ostiole and ostiolar canal on each metapleuron. Legs fairly long, slender, femora not much thickened, tarsi slender.

Pronotum moderately swollen, punctate, tricarinate, hind projection areolate; carinae elevated, areolate, the median higher with larger areolae; lateral carinae slightly concave within on fore part of pronotal disc; hood moderately large, inflated, feebly produced in front, extending backwards to front of pronotal disc, slightly longer than high; paranotum moderately wide, nearly upright, uniseriate opposite humeral angle, then wider and mostly biseriate in front.

Elytra long, not much wider than abdomen, extending backwards beyond apex of abdomen, the sutural areas overlapping each other with apices resting jointly rounded; costal area composed of 1 complete row of clear, large, quadrate areolae; subcostal area about as wide as costa, nearly vertical, biseriate from base to opposite apex of discoidal area,

thence uniseriate; discoidal area large, acutely angulate at base and apex, extending backwards beyond middle of elytron, widest at middle, there 7-8 areolae deep; sutural area large, on same horizontal level as discoidal area. Hind pair of wings slightly longer than abdomen, fumose.

Holotype macropterous ♀ (BISHOP 3851), Fak Fak, coast of Bomberai, Vogelkop, 1-100 m, SW New Guinea, 3. VI. 1959, Maa.

The generic position of this and the former species need further attention. The slender antennae and long 4th segment seem to be the main characters that separate them from the American genus *Teleonemia* Stål.

Ulonemia malacca (Drake)

Perissonemia malacca Drake, 1942: 3.

Ulonemia malacca: Drake & Ruhoff, 1960b: 29.

DISTRIBUTION: Malaya.

NEW RECORDS: SABAH (N. Borneo): West coast Residency, Ranau, 13 km Paring Hot Springs, 500 m, 8-11. X. 1959, Maa; Ranau, 500 m, 8-18. X. 1958, Quate.

Cromerus kalshoveni Drake

Cromerus kalshoveni Drake, 1926: 334.

DISTRIBUTION: Java, Philippine Is.

NEW RECORDS: SABAH (N. Borneo): Tenompok, 10-14. II. 1959, Maa; West coast Residency, Ranau, 500 m, 28. IX-7. X. 1958, Quate. SABAH (N. Borneo, SE): Forest Camp, 19 km N of Kalabakan, 27. X. 1962, Hirashima.

Cromerus invarius (Walker)

Monanthia invaria Walk., 1873: 196.

Cromerus invaria: Distant, 1902: 356.

DISTRIBUTION: New Guinea.

NEW RECORDS: SE NEW GUINEA (Papua): Kiunga, Fly River, 8-10. VIII, 10-17. IX. 1957, Brandt; Bisianumu, E of Port Moresby, 500 m, 22. IX. 1955, Gressitt; W Distr. Oriomo Govt. Sta., 26-28. X. 1960, Gressitt. NW NG: Waris, S of Hollandia, 450-500 m, 1-23. VIII. 1959, Maa; Genjam, 40 km W of Hollandia, 100-200 m, 1-10. III. 1960, Maa; Hollandia, 24. I. 1960, Maa; Bodem, 100 m, 11 km SE of Oerberfaren, 7-17. VII. 1959, Maa. NE NG: Maprik, 150 m, 29. XII. 1959-17. I. 1960, Maa; Dreikikir, Sepik Distr., 350 m, 24. VI. 1961, light trap, Gressitt; Wanuma, Adelbert Mts, 800-1000 m, 26. X. 1958, Gressitt. SABAH (N. Borneo): Tenompok, 10-15. II. 1959, Maa; Tawau Residency, Kalabakan R., Tawau, 48 km W, 9-18. XI. 1958, Quate; Sandakan Bay, Sapagaya Lumber Camp, 2-20 m, 5. XI. 1957, Gressitt; Forest Camp, 19 km N of Kalabakan, 27. X. 1962, Hirashima. SARAWAK: Nanga Pelagus, nr. Kapit, 180-585 m, 7-17. VIII. 1958; Merirai V., Kapit Distr., 1-6. VIII. 1958, Maa.

Furcilliger asperulus Horváth

Furcilliger asperulus Horv., 1925: 4, fig. 2.

Furcilliger orestes Drake & Ruhoff, 1962b: 492. New Synonymy.

DISTRIBUTION: New Guinea, Australia.

NEW RECORDS: NW NEW GUINEA: Waris, S of Hollandia, 450-500 m, 1-17.VIII.1959, sweeping, Maa. SE NG (Papua): Brown River, 5 m, 23.X.1960, Gressitt.

Larotingis aporia Drake

Larotingis aporia Drake, 1960: 357, fig. 11.

DISTRIBUTION: New Guinea (West).

NEW RECORDS: NE NEW GUINEA: Karimui, S of Goroka, 1000 m, 6.VI.1961, on banana, Gressitt. NW NG: Waris, S of Hollandia, 450-500 m, 1-10.VIII.1959, Maa; Wamena, 1700 m, 10-25.II.1960, Maa. NEW BRITAIN: Keravat, 30 m, 2.IV.1956, Gressitt.

Dictyla sauteri (Drake)

Monanthia sauteri Drake, 1923: 103.

Dictyla sauteri: Drake & Ruhoff, 1960a: 51.

DISTRIBUTION: Taiwan, Philippine Is.

NEW RECORDS: NW NEW GUINEA: Hollandia, 18.I.1959.

Ottoicus dissitus Drake

Ottoicus dissitus Drake, 1960: 358, fig. 12.

DISTRIBUTION: New Guinea.

NEW RECORDS: NW NEW GUINEA: Mt Otto, above Kabebe, 21-24.VI.1955, Gressitt.

Orotingis eueides Drake

Orotingis eueides Drake, 1960: 364, fig. 16.

DISTRIBUTION: New Guinea (West).

NEW RECORDS: NW NEW GUINEA: Enarotadi, Wisselmeren, 1800 m, 2.VIII.1955, Gressitt.

Belenus bengalensis Distant

Belenus bengalensis Dist., 1909a: 117.

DISTRIBUTION: India, Thailand.

NEW RECORDS: SE NEW GUINEA (Papua): Kiunga, Fly River, 26-30.VII.1957, Brandt.

Belenus eupetes Drake and Ruhoff, n. sp.

SABAH (N. Borneo): Tawau Residency, Tawau.

Large, broad, elytra together in resting position, obovate, brownish with pronotal disc dark fuscous and clothed with tiny, scale-like, golden pubescence; head black with cephalic spines testaceous; body beneath blackish fuscous with laminated sides of rostral furrow brownish testaceous. Antennae reddish brown with segments I and II dark fuscous, segment IV missing. Legs reddish fuscous with femora dark ferruginous. Length 4.80 mm, width (near middle of elytra) 2.50 mm.

Head very short, scarcely produced in front of eyes; dorsal spines moderately long, front

3 porrect, hind pair appressed; bucculae closed in front. Antennal tubercles fairly large, coniform. Antenna moderately long; segment I short, thicker and slightly longer than II; III long, slender; measurements: segment I, 16; II, 10; III, 85?; IV, missing. Rostrum brownish, reaching to end of sulcus; laminae of sternal sulcus uniseriate, with V-shaped opening behind. Legs rather short, femora moderately swollen; tarsi slender. Metathoracic scent glands with ostiole and sulcus on each metapleuron, sulcus narrow with sides raised.

Pronotum longly convex, punctate with backward process areolate, thickly clothed with scale-like, golden pubescence; tricarinate, each carina distinct with median ending posteriorly before reaching apex of backward projection, the lateral pair ending anteriorly in front of middle of discal swelling; hood moderately large, inflated, slightly longer than high (68 : 60), extending backwards to fore margin of discal elevation; paranota moderately large, each slightly turned upwards, width and length subequal.

Elytra very wide, much wider and much longer than abdomen; costal area wide, mostly 5 areolae deep, the areolets distinct but not serially arranged nor always clearly separated from one another; subcostal area not as wide as costa, about $2/3$ as long as elytra, narrowed at base and apex; areolae, like those in discoidal area, confused and not serially arrayed. Hind pair of wings longer than abdomen, clouded with dark fuscous.

Holotype macropterous ♀ (BISHOP 3852), Tawau, Tawau Residency, Sabah (N. Borneo), 19.XI.1958, T. C. Maa.

Differs from *B. ravana* (Kirkaldy) from Ceylon, by its smaller size, narrower paranota, and obovate form of elytra. It is very different in form and areolation from other members of the genus *Belenus* Distant occurring in Asia.

Ammianus toi (Drake)

Phyllontochila toi Drake, 1938 : 196.

Ammianus toi: Drake, 1955 : 5.

DISTRIBUTION: China, Vietnam, Java.

NEW RECORDS: SABAH (N. Borneo): Ranau, West coast Residency, 500 m, 22-25.I.1959, Maa.

Ammianus admirandus (Drake)

Phyllontocheila admiranda Drake, 1931 : 96.

Ammianus admirandus: Drake, 1955 : 5.

DISTRIBUTION: Borneo, Malaya.

NEW RECORDS: SABAH (N. Borneo): Ranau, West coast Residency, 500 m, 28.IX-7.X. 1958, Maa.

Celantia creta Drake

Celantia creta Drake, 1960 : 366, fig. 17.

DISTRIBUTION: New Britain.

NEW RECORDS: NW NEW GUINEA: Karubaka, Swart Vall., 1300m, 7.XI.1958, Gressitt.

Eteoneus boops (Blöte)

Compseuta boops Blöte, 1945 : 89.

Eteoneus boops: Drake, 1948a: 75.

DISTRIBUTION: Sumatra, Philippine Is.

NEW RECORDS: NW NEW GUINEA: River Tor (mouth), 4 km E of Hol Maffen, 4.VII.1959, sweeping, Maa.

***Eteoneus lectus* Drake**

Eteoneus lectus Drake, 1960: 353, fig. 9.

DISTRIBUTION: New Britain.

NEW RECORDS: NEW BRITAIN: Gazelle Pen., Gaulim, 140 m, 19-20.XI.1962, Sedlacek; Keravat, 139 m, 20-25.XI.1959, Maa. NW NG: Nabire, S Geelvink Bay, 5-50 m, 25.VIII.-2.IX.1962, Sedlacek. BISMARCK ARCHIPELAGO: Rossum, Manus I., 35-125 m, 30.VI.1959, sweeping, Maa; Rossum, 6 km SE of Lorengau, 180 m, 23.XII.1959, Maa.

***Eteoneus megistus* Drake & Ruhoff, n. sp.**

SABAH (N. Borneo): Tenompok.

Elongate, broad, obovate, widest across elytral crossband. Head ferrugineous, shiny; pronotum brownish fuscous; elytra brownish testaceous with median crossband brownish to fuscous (large pale spot in band in each discoidal area), sutural area with a brownish stripe; body beneath brownish fuscous with prosternum mostly black; sternal laminae of rostral sulcus brownish. Antenna brown with segment IV fuscous. Legs brownish. Length 5.20 mm, width 2.60 mm.

Head very short, unarmed; bucculae areolate, closed in front. Rostrum brown, with tip resting on metasternum in repose; laminae on sternum uniseriate, with a wide, V-shaped opening behind. Antenna slender, measurements: segment I, 12; II, 10; III, 103; IV, 60. Metasternal scent glands with opening and prominent canal on each metapleuron. Hypocostal lamina uniseriate.

Pronotum large, longer than wide (90:68), convex, areolate, areolets on disc and backward projection about equal in size; unicarinate, the carina percurrent, not areolate; humeral angles each with a distinct, outward, triangular projection. Elytra much wider and much longer than abdomen, with boundary vein on outer margins rather thick, discoidal areas overlapping each other so that their apices are jointly rounded; costal area wide, 4 to 5 areolae deep, slightly wider in basal and apical parts than at middle; subcostal area wide, 3 to 4 areolae deep, not as wide as costal area; discoidal area large, extending backwards slightly beyond middle of elytra, acutely angulate at base and apex, around 10 areolae wide at widest part near middle; sutural area large. Hind wings extending backwards beyond apex of abdomen, fumose. Legs slender, femora slightly thickened; tarsi slender.

Holotype macropterous ♂ (BISHOP 3853), Tenompok, 1460 m, 48 km E of Jesselton, Sabah (N. Borneo), 17-21. X. 1958, T. C. Maa; allotype macropterous ♀, Tenompok, 13. II. 1959, Sabah (N. Borneo), T. C. Maa. Paratype: 1 ♂ taken with type.

This is the largest member in the genus. The entire dorsal surface is sparsely clothed with scale-like or very short, upright, golden pubescence (viewed from lateral aspect). It is larger than *E. angulata* Drake & Maa from Fukien, China.

Eteoneus peroronus Drake

Eteoneus peroronus Drake, 1942: 7.—Drake & Ruhoff, 1962a: fig. 42.

DISTRIBUTION: Malaya, New Guinea (Papua, NE, West).

NEW RECORDS: NW NEW GUINEA: Maffin Bay, IX.1944, Ross; Nabire, S Geelvink Bay, 0–30 m, 2–9.VII.1962, Gressitt. SE NG (Papua): Bisianumu, NE of Port Moresby, 500 m, 8.VI.1955, Gressitt. NE NG: Korop, Upper Jimmi Vall., 1300 m, 12.VII.1955, Gressitt. SABAH (N. Borneo): Liawan, 14–19.I.1959, Maa; Sandakan Bay (SW), Sapagaya Lumber Camp, 2–20 m, 3.XI.1957, Gressitt; Gomantong Caves, 22–26.XI.1958, Maa.

Eteoneus sarptus Drake and Poor

Eteoneus sarptus Drake & Poor, 1937a: 12.

DISTRIBUTION: Philippine Is.

NEW RECORDS: New Guinea.

Trachypeplus apistus Drake and Ruhoff, n. sp.

NW NEW GUINEA: Swart Vall., Karubuka. NE NEW GUINEA: Goroka-Kabebe.

Small, oblong, brown with pronotal disc dark brown, head black, cephalic spines testaceous, body beneath reddish brown, without color markings. Legs dark brown. Antennae with segments I and II brown, other segments wanting. Length 2.75 mm, width (elytra) 1.25 mm.

Head very short, scarcely produced in front of eyes, armed with 5 short spines; bucculae areolate, fore ends not meeting in front of labium. Rostrum barely reaching to metasternum; laminal sulcus uniseriate, open behind. Metathoracic scent glands opening and canal not visible on either metapleuron. Hypocostal laminae narrow, each uniseriate. Legs slender, femora slightly swollen.

Pronotum moderately convex, finely punctate, areolate on backward process, tricarinate, each carina elevated and composed of 1 row of quadrate areolae; hood small, tectate, longer than high, tapering backwards, terminating at front margin of pronotal disc; paranotum upright, composed of 2 rows of areolae. Elytra wider and longer than abdomen; costal area wide, composed of 3 rows of areolae serially arranged; subcostal area nearly vertical, much narrower than costal, composed of 2 rows of small areolae; discoidal area extending backwards behind middle of elytron, acutely angulate at front and hind ends, widest a little behind middle, there 6 or 7 areolae deep; sutural areas slightly overlapping each other, apices jointly rounded in repose. Hind wings functional.

Holotype macropterous ♀ (BISHOP 3854), Swart Vall., Karubaka, 1400 m, NW New Guinea, 6.XI.1958, Gressitt. Paratypes: Goroka-Kabebe, 1800 m, NE New Guinea, 24.VI.1955, Gressitt.

The narrower, upright paranota and absence of a costal crossband, separate this species from *T. guinaicus* Drake. In the latter, the outer margin of the reflexed paranotum is in contact with the pronotal surface.

Leptoypha luzona Drake and Ruhoff

Leptoypha luzona Drake & Ruhoff, 1961: 140.

DISTRIBUTION: Philippine Is.

NEW RECORDS: SABAH (N. Borneo): Ranau, West coast Residency, 13 km N Paring Hot Springs, 500 m, 8-11.X.1958, Maa; Ranau, 500 m, 7-18.X.1958, Maa.

Leptoypha hospita Drake and Poor

Leptoypha hospita Drake & Poor, 1937a: 12.

DISTRIBUTION: Malaya, China.

NEW RECORDS: SABAH (N. Borneo): West coast Residency, Ranau, 13 km N Paring Hot Springs, 500 m, 8-11. X. 1958, Maa.

Larotingis aporia Drake

Larotingis aporia Drake, 1960: 357, fig. 11.

DISTRIBUTION: New Guinea (W).

NEW RECORDS: NE NEW GUINEA: Karimui, S of Goroka, 1000 m, 6.VI.1961, on banana, J. L. & M. K. Gressitt. NW NG: Waris, S of Hollandia, 450-500 m, 1-10.VIII.1959, Maa; Wamena, 1700 m, 10-25.II.1960, Maa. NEW BRITAIN: Keravat, 30 m, 2.IV.1956, Gressitt.

Genus **Leptoptyx** Drake and Ruhoff, n. gen.

Small, narrow, oblong, nearly parallel-sided. Head very short, feebly produced in front of eyes, armed with 5 dorsal spines; bucculae areolate, closed in front. Antennal tubercles spiniform, blunt. Antennae slender, moderately long; segment I short, slightly thicker and not much longer than II; III very slender and long, about 2× as long as IV, the latter slightly swollen. Rostrum moderately long, ending on or beyond mesosternum; sulcal laminae present on meso- and metasternum. Legs moderately long, femora not much swollen, all tarsi slender.

Pronotum moderately convex, finely pitted, areolate on backward projection, tricarinate; lateral carinae usually partly covered in front of pronotal disc by its respective reflexed paranotum. Hood small, truncate in front, extending backwards between calli to pronotal disc, often with fore margin on each side convex so as to leave a small, obtusely angulate notch at middle; paranota rather narrow, totally reflexed. Ostiole and ostiolar canal of metasternal scent glands not visible on either metapleuron. Elytra not much wider than, and extending backwards beyond apex of abdomen; divided into the usual divisions, with apices overlapping and jointly rounded in resting position; sutural area extending backwards a little beyond middle of elytron. Hind wings functional.

Type species: *Leptoptyx atopia*, n. sp.

Allied to *Leptopharsa* Stål, but readily separated from it by the reflexed paranota, and the longer and somewhat tectiform collar (=hood). In addition to the type species, one other member of the genus is characterized.

Leptoptyx atopia Drake and Ruhoff, n. sp.

SOLOMON IS.: Poha R., Guadalcanal.

Small, testaceous with pronotal disc, collar or hood, hinder part of paranotum, apex and a few spots on outer boundary vein of discoidal areas fuscous; head, sutural area and

apex of costal area pale brown; body beneath dark fuscous. Legs testaceous, each femora with a prominent, subapical, dark fuscous band. Bucculae wide, brown, closed in front. Antennae with segments I and II testaceous, other segments missing. Length 2.15 mm, width (elytra) 0.80 mm.

Head short, armed with 5 testaceous spines, hind pair appressed, 3 frontal ones porrect. Rostrum brown, apex resting on mesosternum; sulcal laminae present on all 3 sternal divisions, each uniseriate, closed behind. Pronotum moderately swollen, punctate with triangular projection areolate, tricarinate, each carina indistinctly areolate, lateral pair covered in front of pronotal disc by reflexed paranota; hood or collar truncate in front, 4 areolae long, broadly tectate; each carina indistinctly areolate. Paranotum 4 areolae deep (basal rows on underside and thus not visible dorsally) with an oblique ridge above humeral angle. Elytra hollowed on outsides behind middle, the apices slightly wider and jointly rounded at rest; costal area almost entirely biseriate, with 3 or 4 intercalated cells in widest part opposite apex of discoidal area, the areolae confused and not arranged serially; subcostal area vertical, mostly biseriate, the areolae small; discoidal area reaching middle of elytron, narrowed at base and apex, widest near middle, there 7 or 8 areolae deep; sutural area clouded with brownish so that the areolae are not clearly defined. Hind pair of wings functional.

Holotype macropterous ♂ (BISHOP 3855), Poha River, Guadalcanal, Solomon Is., 5 m, 20.VI.1956, J. L. Gressitt. Paratype: 1 ♂ taken with type.

This species differs from its congener in color and markings, biseriate costal areas, and the transverse ridge on each paranotum over humeral angle.

Leptoptyx icelia Drake and Ruhoff, n. sp.

NEW BRITAIN: Keravat. SOLOMON IS.: Guadalcanal.

Small, narrow, parallel-sided, brown with head dark fuscous, body beneath dark brown, some crossveins in costal area fuscous. Legs pale testaceous. Antennae pale testaceous, often with basal segment dark fuscous. Length 2.40 mm, width (elytra) 0.75 mm.

Head very short, armed with 5 short, cephalic spines; bucculae areolate, closed in front. Rostrum brown, with apex resting near middle of mesosternum; rostral laminae of sternal sulcus uniseriate. Antennae long, slender, inconspicuously pubescent, measurements; segment I, 9; II, 7; III, 50; IV, 20. Legs, including tarsi, slender.

Pronotum moderately convex, punctate, tricarinate, all carinae slightly elevated, each not clearly areolate; lateral carinae short, terminating near middle of pronotal disc, feebly divergent posteriorly, not concealed by reflexed paranota; hood (collar) tectate, 4 or 5 areolae wide. Paranota moderately wide, completely reflexed, 2 rows of areolae wide on left side and 3 deep on right side; paratypes all 2 areolae deep. Hind wings clouded with fuscous.

Elytra narrow, extending a little beyond tip of abdomen; costal area narrow, uniseriate; subcostal area nearly vertical, biseriate along discoidal area; discoidal area each extending beyond middle of elytron, acutely angulate at base and apex, widest at middle, there 5 areolae wide, the apex slightly raised and blackish; sutural area large, on same horizontal level as discoidal area, apices of elytra resting jointly rounded in repose.

Holotype macropterous ♂ (BISHOP 3856), Kukum, Guadalcanal, 10 m, Solomon Is., 18.VI.

1956, light trap, Gressitt; allotype macropterous ♀, Keravat, 135 m, New Britain, 20-25. XI.1959, Maa. Paratype: same locality and date as allotype.

This small species is readily separated from *L. atopia*, n. sp. by the brown collar and uniseriate costal area.

Perissonemia borneensis (Distant)

Teleonemia borneensis Dist., 1909b: 166, pl. 10, figs. 1, 1a.

Perissonemia (Ulonemia) borneensis (sic): Drake & Poor, 1937a: 4.

DISTRIBUTION: Borneo, Singapore, China, Philippine Is., New Guinea (NE).

NEW RECORDS: NW NEW GUINEA: Hollandia-Binnen, 100 m, 1. XI. 1958, Gressitt; Bodem, 100 m, 11 km SE of Oerberfaren, 7-17.VII.1959, Maa; Kutsime, W of Swart Vall., 1500 m, 14.XI.1958, Gressitt. NE NG: Kassam, 1350 m, 48 km E of Kainantu, 28.X.1959, sweeping, Maa; Wau, Morobe Distr., 1250 m, 23.I.1963, Sedlacek; W Highlands, Baiyer R., 1150 m, 18.X.1958, on palm, Gressitt; Amok, 165 m, 6.I.1960, Maa. SABAH (N. Borneo): Sandakan Bay (SW), Sapagaya Lumber Camp, 2-20 m, 3.XI.1957, Gressitt; Sandakan Bay (NW), Sepilok Forest Reserve, 1-10 m, 26.X.1957, Gressitt; Ranau, 500 m, 8-18.X, 5-8.XI. 1958, Quate; Jesselton, 3.I.1963, Hirashima.

Perissonemia torquata Drake and Poor

Perissonemia torquata Drake & Poor, 1937a: 2, pl. 1.

DISTRIBUTION: Philippine Is., New Guinea, Solomon Is.

NEW RECORDS: NW NEW GUINEA: Bodem, 100 m, 11 km SE of Oerberfaren, 7-17. VII.1959, Maa; Hollandia-Binnen, 100 m, 2.XI.1958, Gressitt; Cyclops Mts, Ifar, 300 m, 22. VI.1959, Maa; Biak I., Mokmer, 5-10 m, 26.V.1959, Gressitt; Hollandia area, W. Sentani, Cyclops Mts, 150-250 m, 22.VI.1959, Maa; Waris, S of Hollandia, 450-500 m, 16-23.VIII. 1959, sweeping, Maa. NE NG: Amok, 165 m, 6.I.1960, Maa; Maprik, 160 m, 29.XII.1959-18. I. 1960, Maa. SE NG (Papua): Kokoda Pitoki, 400 m, 23. III. 1956, Gressitt; Brown River, 20.VIII.1959, Maa. SOLOMON IS.: Buka Agric. Sta., 6-10.XII.1959, Maa; Auki, Malaita, 2-20 m, 21. IX. 1957, Gressitt. SABAH (N. Borneo): Sandakan Bay (SW), Sapagaya Lumber Camp, 2-20 m, 3.XI.1957, Gressitt; Gomantong Caves, 22-26.XI.1958, Maa; Tawau, Tawau Residency, 19.XI.1958, Maa. SARAWAK: Nanga Pelagus near Kapit, 180-585 m, 7-14.VIII.1958, Maa.

Perissonemia bimaculata (Distant)

Teleonemia bimaculata Dist., 1909b: 166, pl. 10, fig. 6.

Cromerus bimaculata: Drake, 1953: 92.

Perissonemia bimaculata: Drake & Ruhoff, 1961: 145.

DISTRIBUTION: Borneo, India.

NEW MATERIAL: SABAH (N. Borneo): Ranau, 6.II.1958, Maa.

Scymnotingis sigillata Drake

Scymnotingis sigillata Drake, 1960: 355, fig. 10.

DISTRIBUTION: New Guinea (NE).

NEW RECORDS: NE NEW GUINEA: Daulo Pass, 2500 m, Asaro-Chimbu Divide, 14. VI.1955, Gressitt. NW NG: Bokondini, 40 km N of Baliem Vall., 1300 m, 16-23.XI.1961, Quate.

Aconchus urbanus (Horváth)

Galeatus (Aconchus) urbanus Horv., 1905: 565.

Aconchus urbanus: Horv., 1906: 54.

Aconchus ghesquierei Schouteden, 1923: 89.

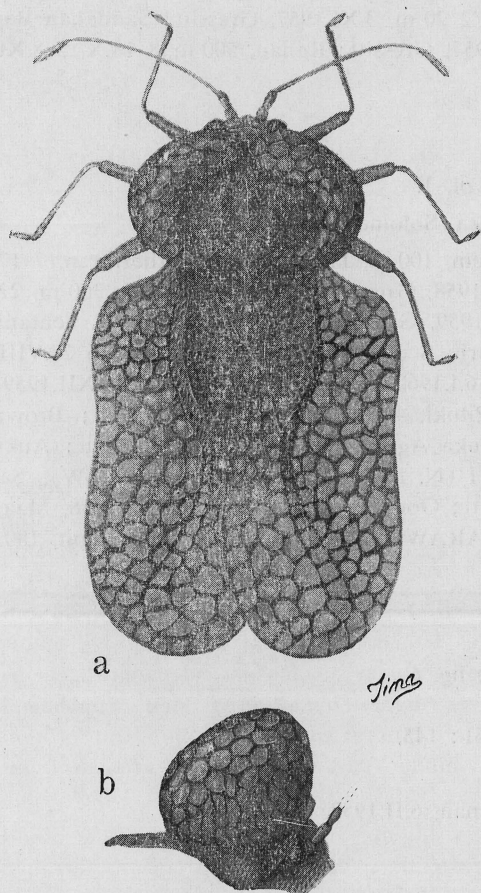
DISTRIBUTION: Italy, Congo, Kenya, South Africa, Mozambique, India, Ceylon, Malaya, Java, Philippine Is.

NEW RECORDS: SABAH (N. Borneo): Keningau, 12-17.I.1959, Maa.

Agaotingis ania Drake and Ruhoff, n. sp.

Fig. 13 a-b.

SW NEW GUINEA: Bomberai, Vogelkop.



Subrectangular, brownish, the wide median part of elytra testaceous with areolae clear hyaline; areolae in brownish areas often partly or entirely clouded with brown or fuscous; body beneath shiny, fuscous. Legs pale testaceous with tips of tarsi fuscous. Antennae testaceous or slightly brownish testaceous with 4th segment brown. Length 3.00 mm, width (elytra) 1.75 mm and (across paranota) 1.30 mm.

Head partly concealed by reflexed paranota, unarmed; bucculae broad, fore ends meeting in front of labium; antennae inconspicuously pubescent, segment IV densely clothed with pale pubescence, measurements: segment I, 10; II, 8; III, 60; IV, 25. Pronotum moderately convex, pitted, areolate on backward projection, tricarinate; median carina composed of 1 row of fairly large areolae; lateral carinae also uniseriate but less elevated with smaller cells, all 3 carinae becoming obsolete on backward process. Elytra with all divisions on almost same horizontal level; costal area very wide, 6 areolae deep in widest part opposite apex of discoidal area; subcostal area very narrow, composed of 2 rows of small areolae up to apex of discoidal area, thence rearward only a single row; discoidal area not attaining middle of elytron, 3 or 4 areolae deep at middle, acutely angulate both at base and apex; sutural area large,

Fig. 13. *Agaotingis ania*, n. sp.: a, dorsal aspect of adult; b, lateral aspect of pronotum.

the areolae about the same size as those in costal area.

Holotype macropterous ♂ (BISHOP 3857), Bomberai, Vogelkop, 700-900 m, nr Fak Fak, SW New Guinea, 3.VI.1959, T. C. Maa.

This is the second species described in the genus *Agaotingis* Drake. It differs from the genotype in having the basal crossband of elytra scarcely indicated and pronotum tricarinate; all carinae are thickly clothed with outwardly projecting pale hairs. In *A. australis* (Montrouzier) from New Caledonia, the pronotum is unicarinate and basal elytral crossband is wide and dark fuscous. Both species have each elytron suddenly widened near the base with the foreside of the expanded part convexly reflexed. The laminate expansion of each paranotum are semiglobous and very similarly widened.

Diplocysta papuana Drake Fig. 14 a-b.

Diplocysta papuana Drake, 1960: 379.

DISTRIBUTION: New Guinea (Papua).

NEW RECORDS: SE NEW GUINEA (Papua): Kiunga, Fly River, 26-30.VII.1957, Brandt.

Diplocysta thaleia Drake and Ruhoff, n. sp. Fig. 15 a-b.

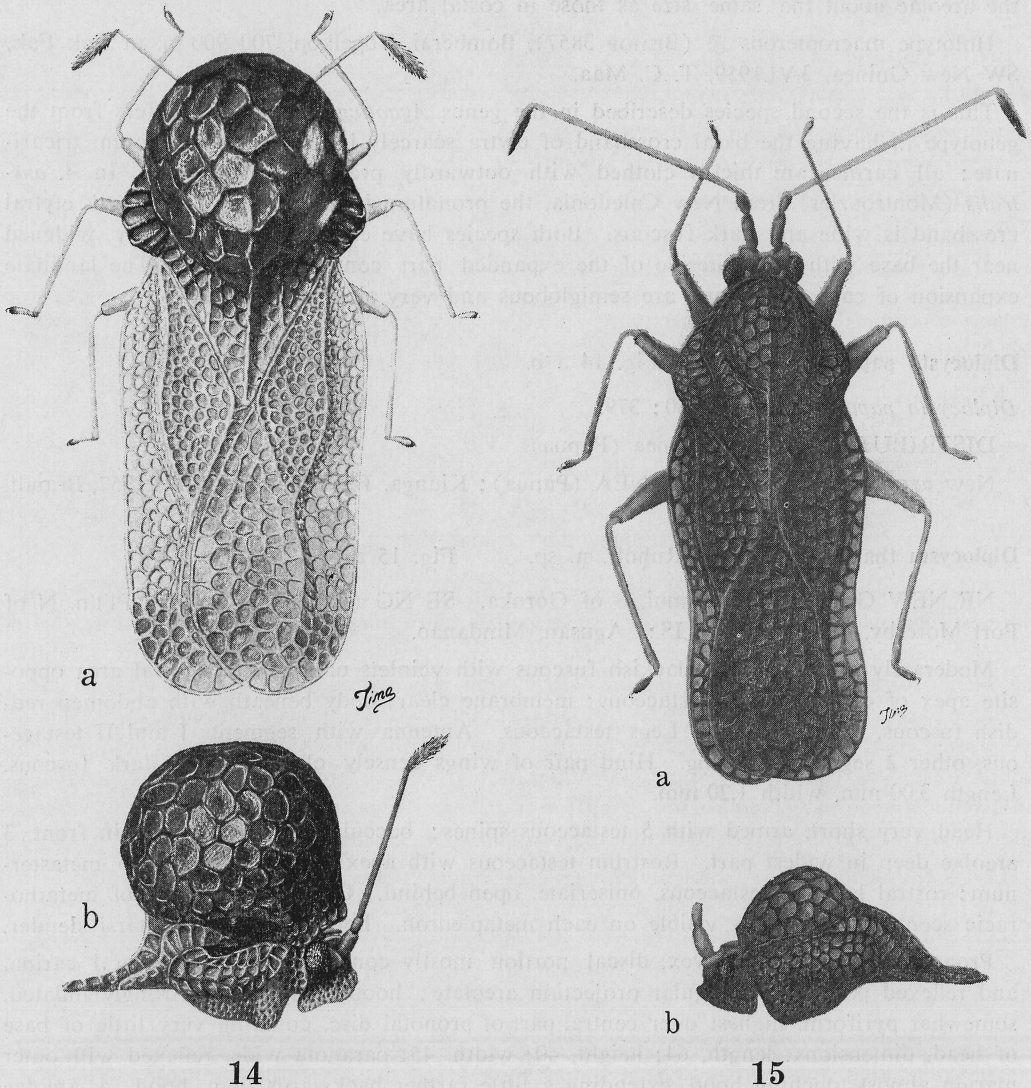
NE NEW GUINEA: Karimui, S of Goroka. SE NG (Papua): Daradae Pl'tn, N of Port Moresby. PHILIPPINE IS.: Agusan, Mindanao.

Moderately large, oblong, blackish fuscous with veinlets of areolae in costal area opposite apex of discoidal area testaceous; membrane clear; body beneath with abdomen reddish fuscous, sternum black. Legs testaceous. Antenna with segments I and II testaceous, other 2 segments missing. Hind pair of wings densely clouded with dark fuscous. Length 3.00 mm, width 1.20 mm.

Head very short, armed with 5 testaceous spines; bucculae blackish, closed in front, 3 areolae deep in widest part. Rostrum testaceous with apex barely reaching to metasternum; rostral laminae testaceous, uniseriate, open behind. Ostiole and canal of metathoracic scent glands plainly visible on each metapleuron. Legs long, slender; tarsi slender.

Pronotum moderately convex, discal portion mostly concealed by hood, lateral carina, and reflexed paranota; triangular projection areolate; hood fairly large, strongly inflated, somewhat pyriform, highest over central part of pronotal disc, covering very little of base of head, dimensions: length, 64; height, 40; width, 45; paranota wide, reflexed with outer margin almost touching hood, extending a little farther backwards than hood, 4 areolae deep on each side, including outer row resting on dorsal surface; tricarinate, all carinae becoming obsolete on triangular process; median highest on pronotal disc, attached to median vein of hood above middle of hind face. Lateral carinae very high on pronotal disc, each slightly reflexed and curving around hinder part of hood, the areolae higher than long.

Elytra longer than abdomen with sutural areas slightly overlapping and resting, jointly rounded; costal area moderately wide, biseriate, with areolae mostly irregularly arranged in rows; subcostal area uniseriate, the areolae a little smaller along discoidal area; discoidal area large, acutely angulate at each end, widest at middle, there 3 areolae deep, reaching to middle of elytron; sutural area on same horizontal level as discoidal area.



Figs. 14-15. 14, *Diplocysta papuana* Drake: a, dorsal aspect of adult; b, lateral aspect of pronotum; 15, *Diplocysta thaleia*, n. sp.: a, dorsal aspect of adult; b, lateral aspect of pronotum.

Hypocostal ridge narrow, uniseriate.

Holotype macropterous ♂ (BISHOP 3858), Karimui, S of Goroka, 1000 m, NE New Guinea, 6.VI.1961, J. L. & M. K. Gressitt; allotype macropterous ♀, Papua, Daradae Pl'tn, 500 m, 80 km N of Port Moresby, 7.IX.1959, Maa. Paratypes: 1 specimen same as allotype; 1 specimen Mindanao, Philippine Is., Agusan, 10 km SE of San Francisco, 13.XI.1959, Quate.

This species is smaller and has a smaller hood than *D. papuana* (fig 14) as depicted

in the illustrations.

Penottus opiparus (Drake)

Diplocysta opipara Drake, 1927b: 18.

Cetiocysta opipara: Drake & Poor, 1939: 205.

Penottus opiparus: Drake & Ruhoff, 1960b: 29.

DISTRIBUTION: Philippine Is.

NEW RECORDS: SABAH (N. Borneo): Tenompok, 10-14.II.1959, Maa; Tenompok, 1460 m, E of Jesselton, 17-21.X.1958, Maa.

Penottus oresbius Drake and Ruhoff

Penottus oresbius Drake & Ruhoff, 1961: 178, figs. 19a, b.

DISTRIBUTION: Borneo, Malaya.

NEW RECORDS: SABAH (N. Borneo): N Paring Hot Springs, 500 m, 13 km from Ranau, West coast Residency, 8-11.X.1958, Maa.

Genus **Aeithauma** Drake and Ruhoff, n. gen.

Oblong, distinctly lacy, widest across middle of elytra. Head short, armed with 5 long spines; bucculae long, areolate; eyes large; rostrum very long, extending beyond rostral sulcus. Antenna with segments I and II short, III very long and slender, IV short, slightly swollen. Rostral channel open behind. Pronotum reticulate, areolae small, unicarinate; median carina areolate, attached to median vein of hood near bottom of hind face; hood very long, high, extremely narrow, scarcely inflated, with inner sides almost touching each other, extending backwards slightly beyond middle of discal crossridge, angularly produced in front between eyes; collar long, with 4 transverse rows of areolae; paranota moderately wide, slightly reflexed, each widest in front of humerus.

Elytra divided into the usual divisions; costal area wide, with areolae (also those in apical part of sutural area) much larger than those in discoidal and subcostal areas; discoidal area extending backwards a little beyond middle of elytron. Hind wings projecting backwards a little beyond apex of abdomen. Legs fairly long, the tarsi slender. Orifice and sulcus of metathoracic scent gland not apparent on either metapleuron.

Type species: *Aeithauma aliona*, n. sp.

The long, high, and extremely narrow and compressed hood (scarcely inflated with sides almost touching each other) distinguishes this odd genus at once from all other tingid genera in the South Pacific and Indian Oceans as well as those from New Guinea and Australia.

Aeithauma aliona Drake and Ruhoff, n. sp. Fig. 16 a, b.

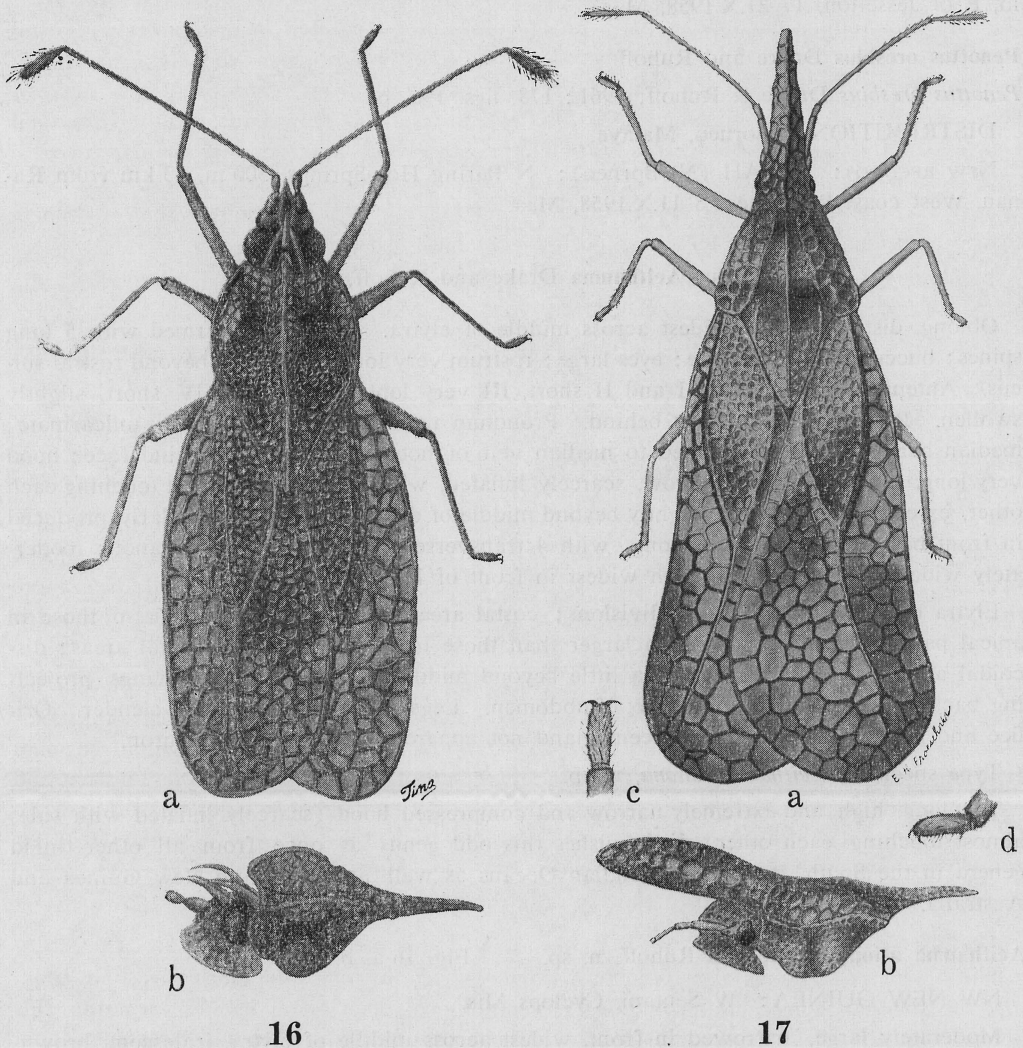
NW NEW GUINEA: W Sentani, Cyclops Mts.

Moderately large, narrowed in front, widest across middle of elytra, iridescent, brownish testaceous with areolae hyaline, beneath reddish brown. Legs and antennae pale brown. Length 3.20 mm, width (widest part of elytra) 1.35 mm.

Head short, armed with 5 long, stout spines; front pair porrect, median longest and gently

curved downward, and hind pair appressed. Antenniferous tubercles small, each concave on inner side; bucculae wide, areolate, closed in front. Rostrum very long, reaching to 3rd visible abdominal tergite; sternal laminae of sulcus testaceous, uniseriate. Ostiole and sulcus of metasternal scent glands not visible on either metapleuron. Hypocostal laminae uniseriate, the areolae small. Antennae long, very slender, measurements: segment I, 8; II, 6; III, 90; IV, 20.

Pronotum moderately convex, unicarinate, entire surface (except calli) reticulate, the areolae subequal in size to those in discoidal area of elytra; paranota widened in front,



Figs. 16-17. 16, *Aethauma aliona*, n. sp.: a, dorsal aspect of adult; b, lateral view of of pronotum; 17, *Aepykorys proekes*, n. sp.: a, dorsal aspect of adult; b, lateral view of pronotum; c, dorsal aspect of hind tarsus; d, lateral aspect of hind tarsus.

slightly reflexed, not produced forward beyond collar, nor backwards behind humeral angle, 1 areolae wide opposite humeral angle and 3 deep opposite callus; hood long, high, extremely narrow, not inflated, with sides strongly compressed so that inner surfaces almost coming in contact with each other, longer than greatest height (36 : 24), top surface arched; median carina long, attached to median longitudinal vein of hood a little above bottom of rear face, subequal in length to hood (52 : 55), uniseriate, the areolae moderately large; backward projection of hind margin subequal in length to pronotal disc and collar conjoined; collar long, with 4 transverse rows of areolae.

Elytra wider and much longer than abdomen, widening posteriorly with sutural areas slightly overlapping each other but with apices a little separated in rest position; costal area wide with areolae larger than in other areas, mostly 2 areolae deep along basal 1/2, then becoming 3 wide apically, the areolae not serially arranged; subcostal area narrow, nearly vertical, biseriate up to apex of discoidal area, then uniseriate apically; discoidal area extending slightly beyond middle of elytra, narrowed and acutely angulate at base and apex, widest at middle, there 5 areolae wide; sutural area on same horizontal level as discoidal area, areolae larger in apical 1/2. Hind wings a little longer than abdomen, clear. Legs long, slender; femora slightly swollen; tarsi slender.

Holotype macropterous ♂ (BISHOP 3859), W Sentani, foot of Cyclops Mts, Hollandia area, 150-250 m, NW New Guinea, 22.VI.1959, T. C. Maa.

The long collar and especially the unusually long and greatly narrowed hood distinguish this species from all other tingids of New Guinea, even the rest of the world. The holotype is illustrated.

Genus *Aepykorys* Drake and Ruhoff, n. gen.

Small, triangular in outline, widest across apices of elytra. Head very short, unarmed, feebly produced in front of eyes, concealed by overhanging hood; bucculae areolate, closed in front. Antennae long, slender, segments I and II short, III very long and slender, more than 2× as long as 4th. Orifice and ostiolar canal of metathoracic scent glands not discernible. Rostrum very long, unusually thick, reaching to end of sulcus.

Pronotum moderately convex, punctate, tricarinate, the lateral carinae short, present behind pronotal disc; paranota moderately wide, long, totally reflexed on pronotal disc; hood subcylindrical, unusually long, porrect, extending forward beyond antennal segment II, with inferior side open for its entire length, the lateral sides curved downward and meeting along apical 1/2, then slightly separated from each other in basal 1/2. Elytra divergent posteriorly, divided into the usual divisions with discoidal area in each elytron extending backwards beyond middle of elytron. Hind wings slightly longer than abdomen, functional. Legs slender, each tarsus thick, cylindrical, moderately pubescent.

Type species: *Aepykorys proekes*, n. sp.

The distinctly triangular form, acutely pointed in front, long and unusually stout beak, and the singular construction of hood (longitudinally open on underside) separate this genus from all other genera described from the South Pacific and Indian Oceans.

Aepykorys proekes Drake and Ruhoff, n. sp. Fig. 17 a-d.

SW NEW GUINEA: SW Vogelkop, Fak Fak.

Triangular, narrowly pointed in front. Brownish with middle of costal areas more testaceous; body beneath fuscous. Antennae and legs pale testaceous. Length 3.00 mm, width (apices of elytra) 1.20 mm.

Head concealed from above by the long, overhanging hood; labium long, unusually thick, reaching slightly beyond apex of rostral channel; bucculae wide, areolate, fore ends meeting in front of labium. Antenna smooth, long, very slender, measurements: segment I, 9; II, 6; III, 55; IV, 24. Legs slender, femora only slightly swollen.

Pronotum moderately convex, pitted, tricarinate; median carina long, composed of 1 row of small areolae; lateral carinae short, parallel, slightly elevated but not areolated, present only behind pronotal disc; paranota fairly wide, totally reflexed, 3 areolae deep, each covering a little more than 1/2 of its respective side of pronotal disc; hind triangular process areolate. Hood unusually long, subcylindrical, reaching considerably beyond apices of 2nd antennal segment, slightly tapering apically, open beneath longitudinally along median line, sides coming in contact behind middle.

Elytra widening and divergent posteriorly, much longer than abdomen; costal area uniseriate at base, then biseriate as far as middle of discoidal area, thence with areolae large and triseriate almost up to apex; subcostal area large, acutely angulate at base and apex, widest near middle, there 7-8 areolae deep; sutural areas large, overlapping within but with apices widely separated from each other. Hind wings a little longer than abdomen, functional.

Holotype macropterous ♀ (BISHOP 3860), Fak Fak, S coast of Bomberai, Vogelkop, 10-100 m, SW New Guinea, 1.VI.1959, T. C. Maa.

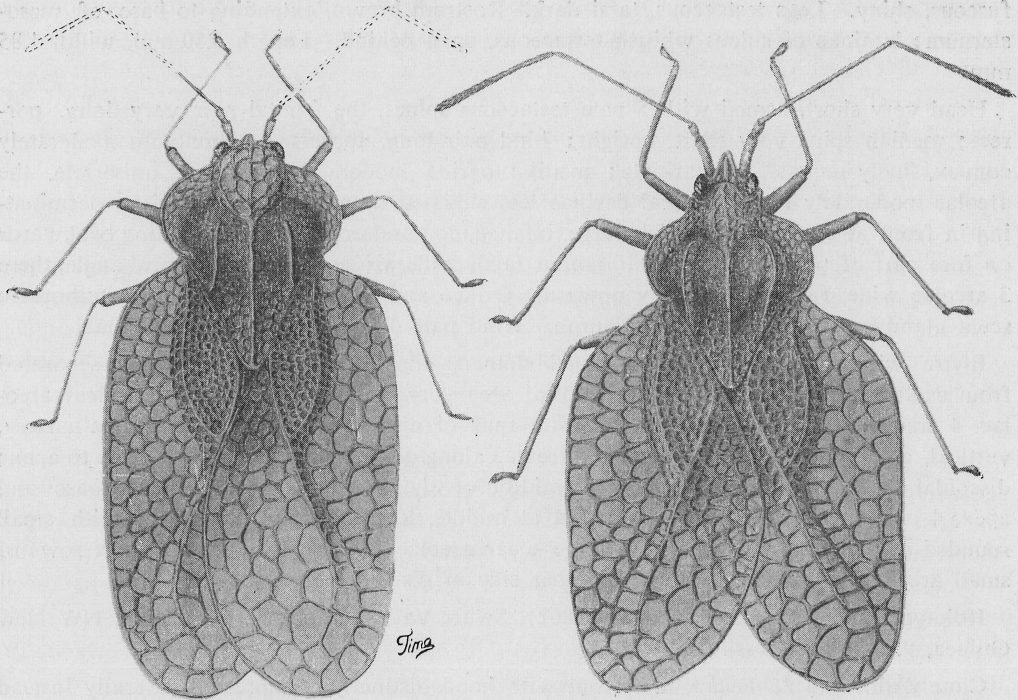
The form of the body, extremely stout rostrum, and the high, cylindrical, correct hood separate this peculiar species from all other lacebugs of the Eastern Hemisphere.

Leptopharsa dieides Drake and Ruhoff, n. sp. Fig. 18.

NE NEW GUINEA: Kassam, 48 km E of Kainantu.

Large, broad, elytra almost rectangular in form. Testaceous with veinlets of discoidal and subcostal areas brownish; pronotal disc fuscous brown, triangular process of hind margin testaceous; body beneath blackish fuscous. Legs brown with tarsi darker. Antennae with segments I and II and perhaps 1/2 of III brown, rest of segments missing. Rostrum brown, scarcely reaching to metasternum; sternal laminae of labial sulcus brown, uniseriate, widely separated on mesosternum, more separated, cordate, closed behind on metasternum. Hypocostal ridge uniseriate, brown. Hind pair of wings clear, not much longer than abdomen. Areolae of elytra and paranota mostly crystal clear. Length 3.60 mm, width (elytra) 1.90 mm.

Head very short, scarcely produced in front of eyes; bucculae wide, areolate, closed in front, brown. Pronotum moderately swollen, punctate, tricarinate, the triangular projection areolate; all carinae long, elevated; median carina slightly higher than lateral pair, attached to median longitudinal vein of hood at top of basal areola of hind face; lateral carinae parallel, terminating a little back of hind face of hood; hood moderately large, nearly globose, inflated, scarcely extended forward in front, prolonged backwards almost to middle of pronotal disc; paranota wide, reflexed nearly upright, with outer margin evenly rounded, 3 to 4 areolae deep in widest part; eyes only partly concealed by hood.



18

19

Figs. 18-19. 18, *Leptopharsa dieides*, n. sp; 19, *Leptopharsa euprines*, n. sp.

Elytra much wider and very much longer than abdomen, apices separated in repose; areolae of costal and sutural areas large, hyaline; costal area very large, mostly 3 areolae deep, 4 to 5 in widest part opposite apex of discoidal area; subcostal area vertical, 2 areolae deep as far back as apex of discoidal area, then uniseriate apically; discoidal area large, not extending backwards to middle of elytron, widest opposite apex of backward process of pronotum, there 5 or 6 areolae deep, narrowed, acutely angulate at base and apex, the areolae much smaller than those in costal and discoidal areas.

Holotype macropterous ♂ (BISHOP 3861), Kassam, 48 km E of Kainantu, 1350 m, NE New Guinea, 28.X.1959, sweeping, T. C. Maa.

The globose hood and outline of the elytra distinguish this species from other members of the genus found in the Papuan Subregion. The genus *Leptopharsa* is worldwide in distribution.

***Leptopharsa aporia* Drake and Ruhoff, n. sp.**

NW NEW GUINEA: Swart Vall., Karubaka.

Broad, slightly brownish testaceous with areolae clear hyaline, pronotal disc and outer marginal veins of paranota and elytra rather thick and brown; body beneath brownish

fuscous, shiny. Legs testaceous, tarsi dark. Rostrum brown, extending to base of mesosternum; laminae of sulcus whitish testaceous, open behind. Length 3.50 mm, width 1.85 mm.

Head very short, armed with 5 pale testaceous spines, the frontal pair very long, porrect; median spine very short, upright; hind pair long, appressed. Pronotum moderately convex, finely punctate, tricarinate; median carina moderately elevated, uniseriate, the areolae moderately large; lateral carinae less elevated than median, uniseriate, terminating in front at calli. Hood fairly large, inflated, compressed laterally, extending backwards on fore part of pronotal disc. Paranotum fairly wide, widest opposite humeral angle, there 3 areolae wide, reflexed obliquely upward. Orifice and ostiolar channel of metathoracic scent gland present on each metapleuron. Hind pair of wings present, functional.

Elytra wider and much longer than abdomen, elipsoidal in outline; apices separated from each other in resting position; costal area very wide, with large crystal clear areolae, 4 areolae deep in widest part opposite apex of discoidal area; subcostal area narrow, vertical, composed of 2 rows of small areolae along discoidal area, then uniseriate to apex; discoidal area narrow, not reaching to middle of elytron, acutely angulate at base and apex, 4 or 5 areolae deep in widest part at middle, longitudinally impressed, with small rounded areolae; sutural area with large clear areolae, except with 1 or 2 short rows of small areolae bordering distal 1/2 of inner side of discoidal area.

Holotype macropterous ♂ (BISHOP 3862), Swart Vall., Karubaka, 14-1600 m, NW New Guinea, 9.XI.1958, Gressitt.

Closely allied to *L. dieides*, n. sp. but with hood distinctly compressed laterally instead of semiglobose and the median carina distinctly arched.

Leptopharsa euprines Drake and Ruhoff, n. sp. Fig. 19.

SE NEW GUINEA (Papua): Daradae, nr Javarere, Musgrove R.

Large, very wide, testaceous iridescent with pronotal disc brownish, areolae clear hyaline; body beneath brownish, shiny. Antennae pale brown with segment IV slender and dark brown; rostral laminae of sternal sulcus brownish; beak brown. Legs pale brown, tarsi dark. Length 3.50 mm, width (elytra) 2.00 mm.

Head very short, armed with 5 long, stout, testaceous spines; bucculae wide, areolate, fore ends almost meeting in front of labium. Antennae long, slender, the III and IV segments subequal in thickness, measurements: segment I, 25; II, 9; III, 80; IV, 72. Antennal tubercles flat, plate-like, each concave on inner side. Legs slender, not much swollen.

Pronotum moderately convex, punctate, areolate on backward projection, tricarinate; median carina arched just back of hood, thence concavely projecting apically, uniseriate; lateral carinae less elevated than median, also uniseriate, each terminating anteriorly at callus; paranota moderately wide, widest opposite humeri, each reflexed obliquely upward, 3 or 4 areolets deep in widest part. Ostiole and ostiolar channel plainly visible on each metapleuron.

Elytra much wider and much longer than abdomen, the sutural areas partly overlapping but with their apices separated from each other; costal area very wide, composed of large areolae, 4 areolae deep in widest part opposite apex of discoidal area; subcostal area very narrow, upright, composed of 2 rows of very small areolets up to end of discoidal

area, then uniseriate to apex; discoidal area moderately large, acutely angulate at ends, not reaching to middle of elytra, widest near middle, there 5 areolae deep, the areolae small, round and subequal in size to those in subcostal area; sutural area large, the areolae (save 2 or 3 rows of small cells adjacent to discoidal area) same size as those in costal area. Hind pair of wings clear, not much longer than abdomen.

Holotype macropterous ♀ (BISHOP 3863), Daradae Pl't'n, nr Javarere, Musgrove R., 100 m, Papua, 4.X.1958, Gressitt.

This and the 2 species described above are the first records for *Leptopharsa* in New Guinea. The larger size, form, and structures as shown in the illustration separate *L. euprines* from the two new forms described above, and also from the two Australian members of the genus.

Hypsotingis columna Drake

Hypsotingis columna Drake, 1960: 363, fig. 15.

DISTRIBUTION: New Guinea (West).

NEW RECORDS: NW NEW GUINEA: Urapura, Kamo Vall., Wisselmeren, 1530 m, 10.VIII.1955, Gressitt.

Aphelotingis muiri (Drake)

Abdastartus muiri Drake, 1927a: 307.

Aphelotingis muri (sic): Drake, 1948c: 176.

DISTRIBUTION: Java, Singapore.

NEW RECORDS: SABAH (N. Borneo): Liawan, 14-19.I.1959, Maa. SARAWAK: Sandong, Kampong Tapuh, 300-450 m, 10.VII.1958, Maa; Nanga Pelagus, near Kapit, 180-585 m, 7-14.VIII.1958, Maa.

Paracopium summervillei (Hacker)

Teleonemia summervillei Hack., 1927: 22, pl. 6, fig. 4.

Paracopium summervillei (sic): Drake, 1947b: 112.

DISTRIBUTION: Australia, New Hebrides Is.

NEW RECORD: SOLOMON IS.: Bougainville I., Buin, 1.VI.1956, Gressitt.

This is the first record of a gall-making tingid in the Solomon Is.

Cottothucha oceanae Drake and Poor

Cottothucha oceanae Drake & Poor, 1941: 163.—Drake & Ruhoff, 1961: 182, fig. 23.

DISTRIBUTION: Amboina, Philippine Is.

NEW RECORDS: SE NEW GUINEA (Papua): Daradae Pl't'n, 500 m, 80 km N of Port Moresby, 4.IX.1959, sweeping, Maa.

Gyalotingis gressitti Drake

Gyalotingis gressitti Drake, 1960: 377, fig. 26.

DISTRIBUTION: New Guinea (West).

NEW RECORDS: NW NEW GUINEA: Wisselmeren, Enarotadi, 19.VIII.1955, Gressitt.

BISMARCK ARCHIPELAGO: Rossum, 6 km SE of Lorengau, 180 m, Manus I., 23. XII. 1959, Maa.

Stephanitis othnius Drake and Ruhoff, n. sp. Fig. 20 a, b.

SABAH (N. Borneo): Tenompok.

Slightly brownish testaceous with pronotal disc and head brownish; body beneath dark fuscous, shiny; median carina and elytra with dark fuscous marking as shown in illustration. Appendages brownish. Length 4.30 mm, width (elytra at apices of discoidal area) 2.10 mm, (near apices of elytra) 2.80 mm.

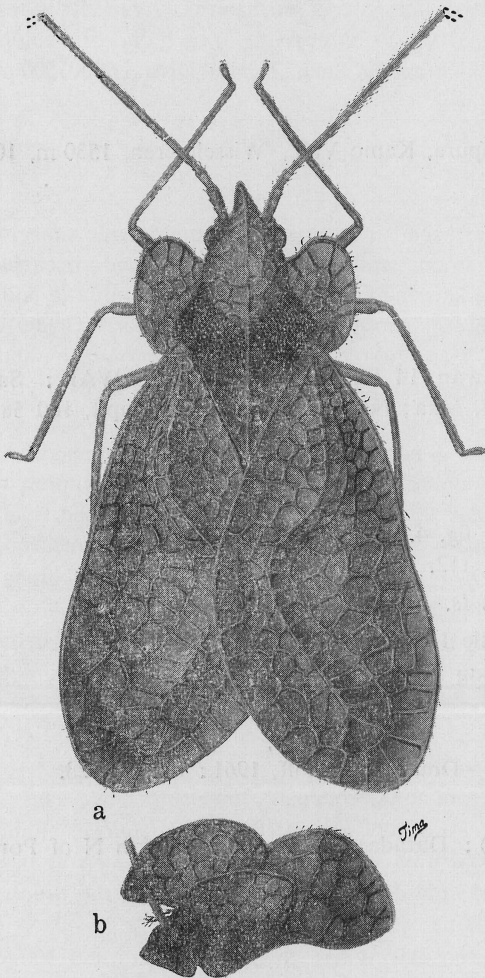


Fig. 20. *Stephanitis othnius*, n. sp.: a, dorsal aspect of adult; b, lateral view of pronotum.

Head very short, concealed by overhanging hood, cephalic spines testaceous, not clearly visible; bucculae closed in front; rostrum brown, with tip resting on metasternum; sternal laminae testaceous, closed behind. Scent gland orifice and sulcus not visible on metapleuron. Antennae long, slender, sparsely pubescent; measurements: segment I, 38; II, 6; III, 140; IV missing. Legs long, slender; tarsi slender.

Pronotum moderately convex, pitted, unicarinate; median carina very high, slightly higher than hood, subequal to hood in length (96:92), with superior edge rounded, 3 areolae deep at highest point, attached to median longitudinal vein of hood near middle of hind face; hood moderately large (95 long; 50 high), covering entire head; paranota wide, reflexed slightly upward, 4 or 5 areolae deep in widest part.

Elytra divergent posteriorly, with apices widely separated from each other in resting position; costal area wide, widest back of apex of discoidal area, there 5 or 6 areolae deep, only 2 wide near base; sutural area nearly erect, biseriate alongside of discoidal area, then with 1 row of rectangular areolae apically; discoidal area with boundary vein separating it from subcostal area, highly elevated, forming a prominent tumid area, distinctly concave on superior surface; areolae in sutural area subequal in size to those in costal area. Dorsal surface with some thinly scattered fine hairs.

Holotype macropterous ♀ (BISHOP 3864),

Sabah (N. Borneo): Tenompok, 1460 m, 48 km E of Jesselton, 15. II. 1959, T. C. Maa.

This species belongs to the subgenus *Norba* Horváth, all members of which have unicarinate pronotum. The unusual color markings as represented in figures distinguish it from other members of the subgenus.

Stephanitis typica (Distant)

Cadamustus typicus Dist., 1903a: 47; 1903b: 132, fig. 95.

Stephanitis typicus: Dist., 1910: 108.

Stephanitis indiana Drake, 1948b: 51.

DISTRIBUTION: Ceylon, India, Pakistan, Hong Kong, China, Japan, Korea, Taiwan, New Guinea (Papua), Sumatra, Java, Malaya, Philippine Is.

NEW RECORDS: SW NEW GUINEA: Danowaria, Vogelkop, on banana, 2.VI.1959, Gressitt. NW NG: Wisselmeren, Enarotadi, 1900 m, 31.VII.1955, Gressitt; Ifar, E end of Cyclops Mts, 150 m, 18.X.1957, Gressitt. SARAWAK: Kampong Pueh, Lundu Distr., 690-1500 m, 1-10.VI.1958, Maa.

Stephanitis anapetes Drake and Ruhoff, n. sp. Fig. 21 a, b.

NW NEW GUINEA: Waris, S of Hollandia.

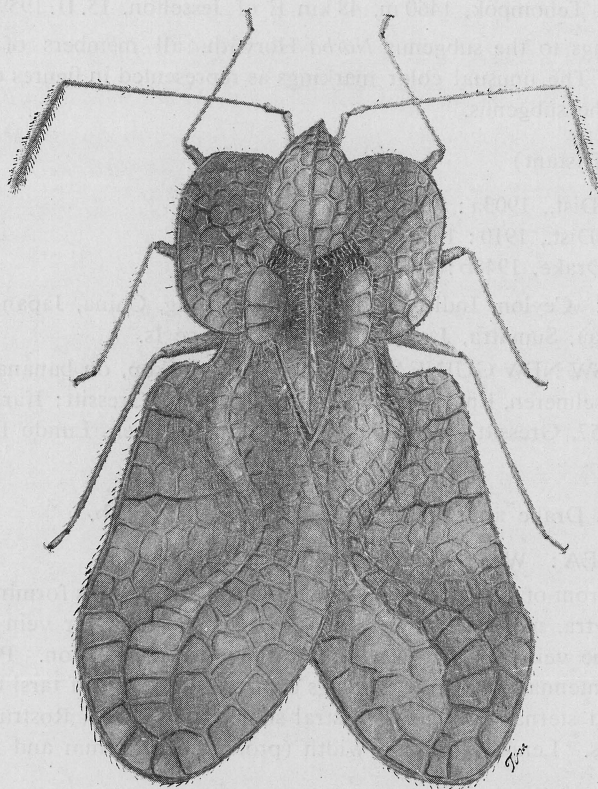
Large, widest in front of elytral apices, pale testaceous with veins forming outside margins of paranota and elytra, median dorsal vein of hood, and superior vein of median carina brown; some oblique veins of elytra fuscous as shown in illustration. Pronotum and body beneath fuscous. Antennae pale brown. Legs brownish with tips of tarsi fuscous. Cephalic spines, bucculae and sternal laminae of rostral sulcus testaceous. Rostrum brown, extending to end of sulcus. Length 4.60 mm, width (pronotum) 2.80 mm and in front of elytral apices 3.20 mm.

Head short, armed with 5 spines, the anterior 3 porrect and hind pair appressed, all concealed by overhanging hood; bucculae wide, closed in front; rostrum extending to middle of mesosternum; rostral laminae of sulcus large, uniseriate, with a V-shaped opening behind. Antennae long, very slender, sparsely clothed with short pubescence, measurements: segment I, 55; II, 16; III, 130; IV, 70. Legs long, slender, sparsely pubescent. Ostiolar opening and channel, not visible on metapleura.

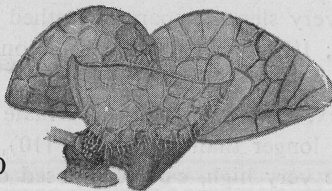
Pronotum moderately convex, finely punctate, tricarinate; median carina very high, as high as hood at top of crest, longer than hood (99:110), subequal at crest to height of hood (52:50); lateral carinae very high, each composed of 3 or 4 high, short cells; hood large, greatly inflated, covering all parts of head, with apex extending beyond middle of antennal segment I; paranota very large, constricted laterally in front of anterior 1/3, reflexed upwards, each 6 or 7 areolae wide in front and 4 opposite humeral angle.

Elytra wide, divergent posteriorly with apices widely separated, lateral margins finely serrate and clothed with short pale hairs; costal area very wide, 4 areolae deep at base and 6 or 7 at widest part near middle; sutural area deeply sinuate, uniseriate, the areolae large; tumid elevation long and fairly high. Hind wings present, pale.

Holotype macropterous ♀ (BISHOP 3865; damaged), Waris, S of Hollandia, 450-500 m, NW New Guinea, 1-7.VIII.1959, T. C. Maa; allotype macropterous ♂ (damaged), same locality, 27-30.VII.1959. Paratypes: 7 specimens, all damaged, taken at type locality VII-VIII, 1959.



a



b

Fig. 21. *Stephanitis anapetes*, n. sp.: a, dorsal aspect of adult; b, lateral view of pronotum.

This species resembles rather closely *S. amboinae* Drake & Poor (fig 22) but differs from it in having the hood longer than median carina. In the former, the hood and median carinae are subequal in length.

***Stephanitis subfasciata* Horváth**

Stephanitis subfasciata Horv., 1912: 320, 325.

DISTRIBUTION: China, Taiwan, Java, Burma, India, Palau Is.

NEW RECORDS: SW NEW GUINEA; Danowaria, Vogelkop, 2.VI.1959, Maa,

Stephanitis agaica Drake

Stephanitis agaica Drake, 1960: 374.

DISTRIBUTION: New Guinea (NE, NW).

NEW RECORDS: NW NEW GUINEA: Wisselmeren, Enarotadi, 19.VIII.1955, Gressitt.

Stephanitis amboinae Drake and Poor Fig. 22 a, b.

Stephanitis amboinae Drake & Poor, 1941: 163.

DISTRIBUTION: Amboina.

NEW RECORDS: none.

The holotype of *S. amboinae* is illustrated to depict the close resemblance and differences between it and *S. anapetes*. In the latter the median carina is distinctly longer than the

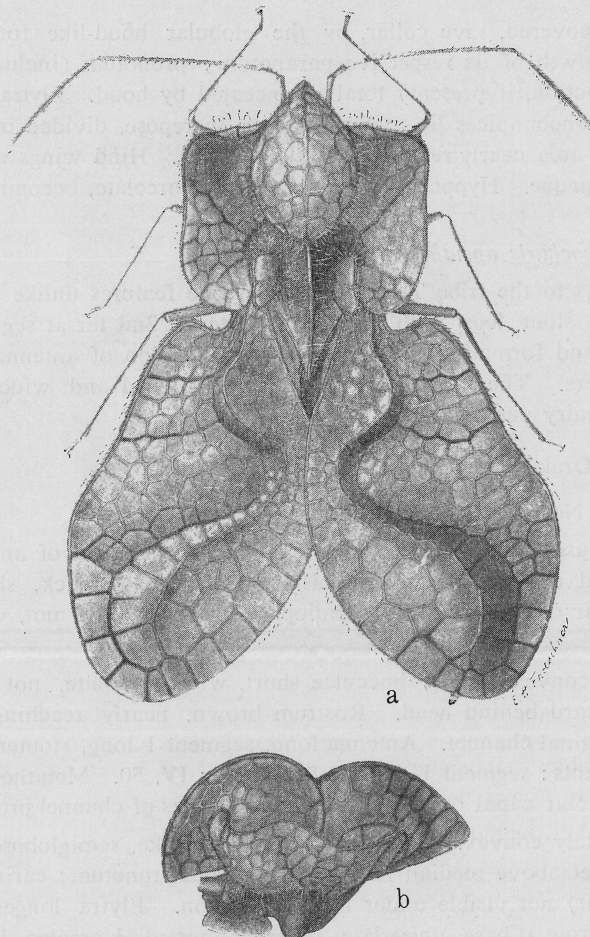


Fig. 22. *Stephanitis amboinae* Drake & Poor: a, dorsal aspect of adult; b, lateral view of pronotum.

hood, whereas these 2 structures are subequal in length in *amboinae*.

Genus **Oeocharis** Drake and Ruhoff, n. gen.

Small, oblong, tapering anteriorly from middle of elytra, with a globose hood (divided longitudinally on median line) behind collar produced backwards so as to cover totally pronotum and median parts of elytra almost up to apices of discoidal areas. Head convex above, uncovered, unarmed. Antenna long; segment I moderately long, 2× as long and slightly stouter than II; III slender, shorter than IV, the latter scarcely thicker, pubescent. Antennal tubercles small. Legs short, femora slightly swollen, mid and hind tarsi with segment II slightly flattened beneath and beset with setal pubescence so as to appear expanded. Rostrum extending on mesosternum; all sternal divisions without rostral laminae, with impressed furrow on prosternum, each of the other sternal areas without impressed sulcus.

Pronotum totally covered, save collar, by the globular hood-like formation, each 1/2 apparently an outgrowth of its respective paranotum; pronotum (including disc, carinae, and backward projection, if present) totally concealed by hood. Elytra with sutural areas overlapping so that their apices lie together jointly in repose, divided into the usual areal divisions; discoidal area nearly reaching middle of elytra. Hind wings a little longer than abdomen, whitish opaque. Hypocostal laminae narrow, areolate, becoming obsolete beyond middle of elytra.

Type species: *Oeocharis apeuthes*, n. sp. (figured.)

This genus belongs to the tribe Tingini but has some features unlike those of all other genera. The short, stout legs with somewhat flattened 2nd tarsal segments on mid and hind legs, position and formation of hood, and segmentation of antennae are sharply distinguishing characters. The fore tibia also appears flattened and widened apically, due mostly to the stiff hairy vestiture.

Oeocharis apeuthes Drake and Ruhoff, n. sp. Fig. 23 a, b.

SOLOMON IS.: New Georgia I., Munda.

Small, blackish fuscous, somewhat shiny; 1/3 and basal 1/2 of antennal segment IV testaceous; discoidal areas of elytra brownish; body beneath black, shiny. Eyes small, brownish. Hind pair of wings whitish, semiopaque. Length 2.40 mm, width (elytra back of hood) 1.00 mm.

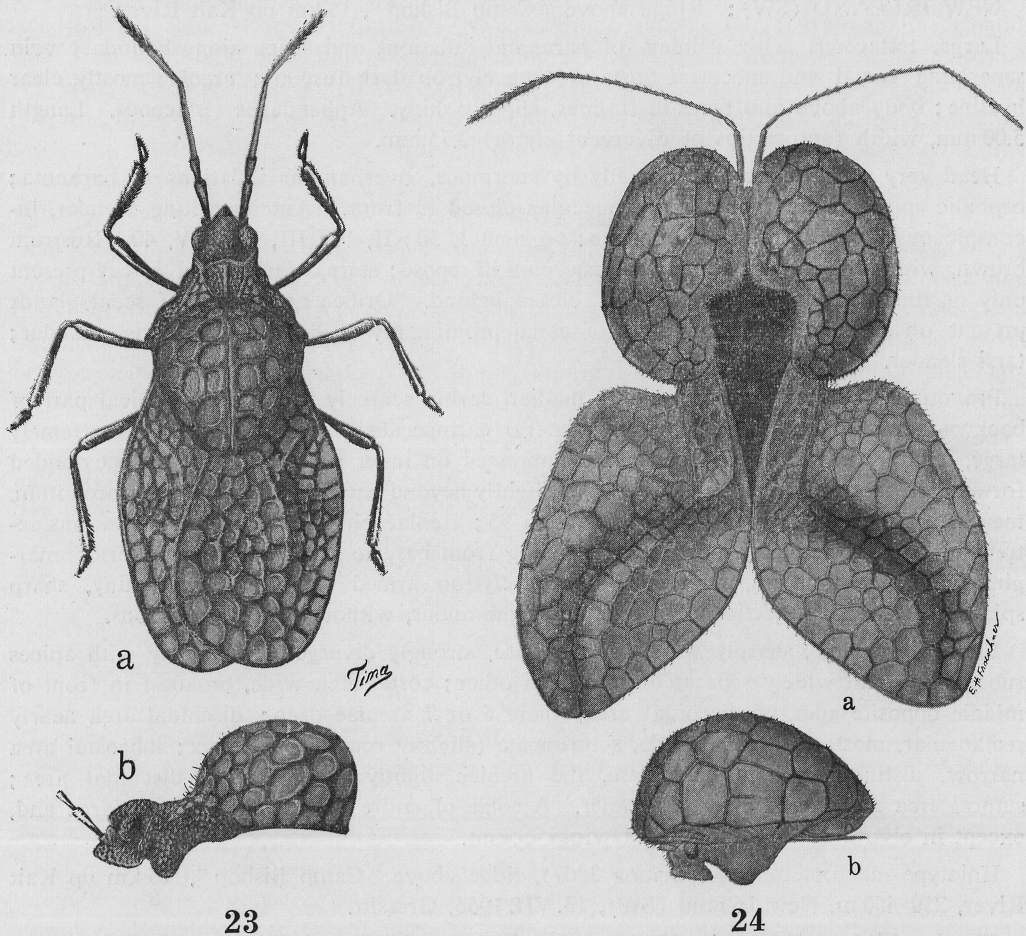
Head very short, convex above; bucculae short, wide, areolate, not longer than head, not produced backward behind head. Rostrum brown, nearly reaching middle of mesosternum, without laminal channel. Antenna long, segment I long, stouter than II, IV longer than III, measurements: segment I, 18; II, 8; III, 35; IV, 50. Metathoracic scent glands with ostiole and ostiolar canal on each metapleuron, sides of channel prominently elevated.

Pronotum moderately convex, totally hidden by hood-like, semiglobose paranota, outer margins of each meet above median longitudinal line of pronotum; carinae and hindward projection (if present) not visible under hood formation. Elytra longer than abdomen; costal area very narrow at base, uniseriate, reflexed upward, 3 areolae deep opposite apex of discoidal area; subcostal area narrow, uniseriate; discoidal areas partly concealed by hood; sutural areas large, areolets margined with brown. Legs short, femora tapered basal-

ly; fore tibia with stiff pubescence appears widened apically, flattened; all tarsi fairly stout, each with segment II appearing flattened because of setal-like pubescence.

Holotype macropterous ♂ (BISHOP 3866), Munda, New Georgia I., New Georgia group, 1-30 m, Solomon Is., 15.VII.1959, Gressitt.

This species is one of the many numerous oddities of Oceania. The antennal segmentation, hood-like formation of paranota, and legs are the distinguishing features.



Figs. 23-24. 23, *Oeocharis apeuthes*, n. sp.: a, dorsal aspect of adult; b, lateral view of pronotum; 24, *Nesocypsela ecpalga*, n. sp.: a, dorsal aspect of adult; b, lateral view of pronotum.

Nesocypsela bellatula Drake

Nesocypsela bellatula Drake, 1960: 375, fig. 25.

DISTRIBUTION: New Guinea (West).

NEW RECORDS: NW NEW GUINEA: Above Ifar, 500-750 m, Cyclops Mts, 23.VI.1959, Gressitt. NE NG: Kassam, 1350 m, 48 km E of Kainantu, 28.X.1959, sweeping, Maa.

Nesocypselas piperica Drake

Nesocypselas piperica Drake, 1957: 203, figs. 1, 2.

DISTRIBUTION: New Britain, New Guinea (Papua).

NEW RECORDS: NEW BRITAIN: Keravat, 13. IV. 1956, Gressitt.

Nesocypselas ecpalga Drake and Ruhoff, n. sp. Fig. 24 a, b.

NEW IRELAND (SW): Ridge above "Camp Bishop", 15 km up Kait River.

Large, testaceous with veinlets of paranotal inflations and stripe along boundary vein separating costal and subcostal areas of each elytron dark fuscous; areolae mostly clear hyaline; body above and beneath fuscous, slightly shiny. Appendages testaceous. Length 5.00 mm, width (across tips of divergent elytra) 3.75 mm.

Head very short, concealed dorsally by enormous, overhanging inflations of paranota; cephalic spines reduced or absent; bucculae closed in front. Antennae long, slender, inconspicuously pubescent, measurements: segment I, 50; II, 10; III, 110; IV, 40. Rostrum brown, with tip barely resting on metasternum in repose; sternal laminae of sulcus present only on metasternum, low, uniseriate, closed behind. Orifice and sulcus of scent glands present on each metapleuron, sides of canal prominently elevated. Legs long, slender; tarsi slender.

Pronotum moderately convex, pitted, median carina scarcely indicated on apical part of backward projection of hind margin; lateral carinae absent; paranotal hoods extremely large, strongly inflated, each concavely impressed on inner side behind middle, extended forward in front of head and backwards slightly beyond backward projection of pronotum, measurements: length 160; height 92; width 95; areolae on ventral sides of inflations extremely large, rectangular, each cell extending from base to outer margin. Exterior marginal vein of paranotum, outer vein of each elytron armed with closely-set, tiny, sharp spines; backward projection of pronotum membranous, without cellular divisions.

Elytra very large, sharply widened near base, strongly divergent posteriorly with apices subangulate and widely separated from each other; costal area wide, broadest in front of middle opposite apex of discoidal area, there 6 or 7 areolae deep; discoidal area nearly rectangular, mostly 3 areolae wide, subtruncate (slightly rounded) at apex; subcostal area narrow, distinctly sinuate, uniseriate, the areolae slightly larger behind discoidal area; sutural area not overlapping each other. Areolae of entire dorsal surface very large and, except in elytral band, clear. Hind wings absent.

Holotype macropterous ♀ (BISHOP 3867), ridge above "Camp Bishop", 15 km up Kait River, 250-450 m, New Ireland (SW), 13. VII. 1956, Gressitt.

Closely allied to *N. piperica* Drake, but easily separated from it by the semicircular backward projection of pronotum, lack of distinct median carina, tiny spines on outer margins of paranota and elytra, and position of the impression on inner side of each paranotum.

Xenotingis malkini Drake

Xenotingis malkini Drake, 1948d: 149.

DISTRIBUTION: New Guinea (West)

NEW RECORDS: NW NEW GUINEA: Hollandia, 100 m, 24.VIII.1955, Gressitt.

***Xenotingis papuana* Drake**

Xenotingis papuana Drake, 1954: 9; 1960: 379, fig. 27.

DISTRIBUTION: New Guinea (Papua, NE).

NEW RECORDS: SE NEW GUINEA (Papua): S Highlands, Mendi, 1660 m, 8. X. 1958, Gressitt; Kokoda-Pitoki, 400 m, 23.III.1956, Gressitt; Brown River, 21.V.1956, Ford; Daradae Pl't'n, 500 m, 80 km N to Port Moresby, 4.IX.1959, sweeping, Maa. NE NG: Madang, 5 m, 22.X.1958, on grasses, Gressitt; Wewak, Sepik Distr., 30 m, 26.VI.1961, Gressitt; Busu River, E of Lae, 100 m, 14.IX.1956, Gressitt. NW NG: Swart Vall., Karubaka, 1400 m, 21.XI.1958, Gressitt; Bodem, 100 m, 11 km SE of Oerberfaren, 7-17.VI.1959, Maa; Cyclops Mts, Ifar, 300 m, 21.VI.1959, Maa; Waris, S of Hollandia, 450-500 m, 1-18.VIII.1959, sweeping, Maa. SW NG: Vogelkop, Fak Fak, S coast of Bomberai, 10-100 m, 3. VI. 1959, Maa. NEW BRITAIN: Warongoi Vall., Gazelle Pen., 100 m, 24.V.1956, Gressitt; Gazelle Pen., Kera-wat, 60 m, 1.IX.1955, Gressitt.

***Xenotingis bakeri* Drake** Fig. 25e.

Xenotingis bakeri Drake, 1927c: 57.

DISTRIBUTION: Philippine Is.

NEW RECORDS: none.

In order to expose pronotal structures needed in specific classification, the hood-like formation of the pronotal outgrowths were removed to uncover the pronotum. In such genera as *Xenotingis*, *Alloiothucha*, *Diplocysta* and *Holophygdon*, important characters are concealed by the overhanging hood, either outgrowths of the collar or paranota.

***Xenotingis tinae* Drake and Ruhoff, n. sp.** Fig. 25 a-d.

NW NEW GUINEA: Bodem, SE of Oerberfaren. SW NG: Bomberai, Vogelkop. NE NG: Amok.

Large with paranota enormous and reflexed upright. Reddish brown with hood and much of costal areas testaceous, slightly iridescent; areolae in hood and apical parts of elytra lightly imbued with reddish brown, slightly transparent. Length 3.75 mm, width (elytra) 1.38 mm, and (across paranota) 1.90 mm.

Head short, mostly concealed by overhanging hood, frontal spines porrect, hind pair appressed, all spines moderately long and testaceous; eyes dark, partly visible from above; bucculae areolate, closed in front. Antenna with segments I and II short, other segments broken off. Rostrum dark reddish brown, extending to end of sternal sulcus; rostral laminae of sternal sulcus uniseriate, slightly divergent posteriorly, open behind. Legs slender, pale testaceous; femora slightly thickened; tarsi slender. Ostiole and ostiolar canal prominent on each metapleuron. Hypocostal laminae uniseriate.

Pronotum moderately swollen, punctate, tricarinate, all carinae long, median uniseriate, more elevated than other 2; lateral pair also uniseriate, feebly divergent anteriorly; hind margin triangular, produced backwards, areolate; hood moderately large, compressed laterally, overhanging head with apex nearly surpassing apices of basal antennal segment; paranota enormously enlarged, semiglobose, reflexed vertically with outer margin of each meeting (or almost) in a straight line high above median carina.

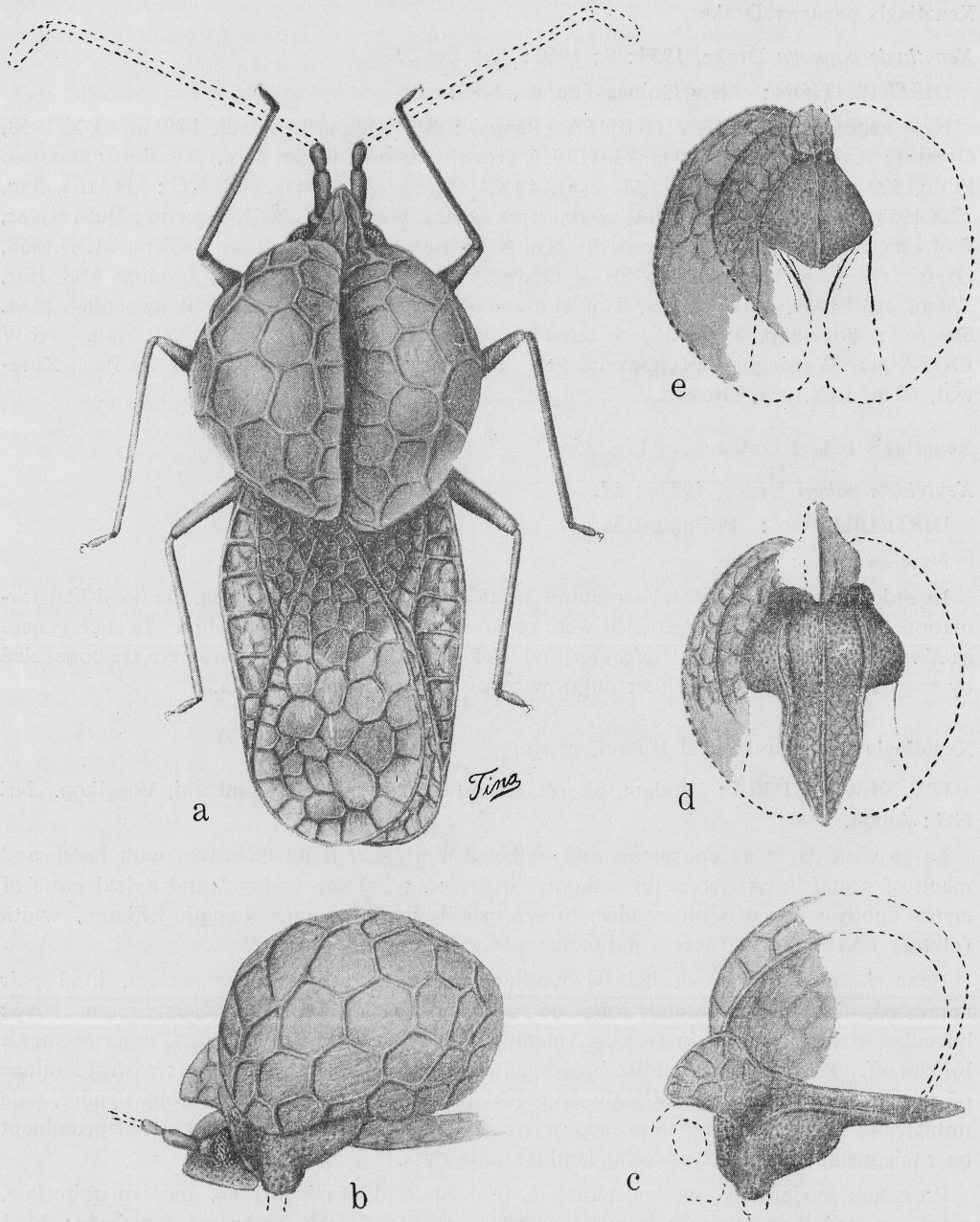


Fig. 25. *Xenotingis tinae*, n. sp. a, dorsal aspect of adult; b, lateral view of pronotum; c, left half of hood removed to show median carina; d, entire hood removed to show pronotal carinae and backward projection of hind margin; e, *Xenotingis bakeri* Drake with each half of hood spread apart to show pronotal structures.

Elytra longer and wider than abdomen; costal area biseriata, with large areolae, the outer row totally reflexed and resting on top of inner row of areolae; subcostal area much narrower, uniseriate, mostly concealed by exterior margin of reflexed outer row of areolae in costal area; discoidal area large, narrowed at base and apex, widest near middle, there 3 or 4 areolae deep, basal 1/2 covered by hinder part of large paranotum; sutural area composed of large areolae, on same horizontal level as discoidal area. Hind wings clear, longer than abdomen.

Holotype macropterous ♀ (BISHOP 3868), Bomberai, Vogelkop, 700-900 m, SW New Guinea, 8.VI.1959, Gressitt; allotype macropterous ♂ (broken), Bodem, 11 km SE of Oerberfaren, 100 m, NW NG, 7-17. VII. 1959, Maa. Paratypes: 1 specimen, macropterous ♀ (broken), same locality as type, 4.VI.1959; 1 specimen, macropterous ♀ (broken), Amok, 165 m, NE New Guinea, 6. I. 1960, Maa.

Very similar in form, size, and general appearance to *X. bakeri* (fig 25e) of the Philippines. The latter differs from it in having the pronotum much smaller and unicarinate; rear margin greatly abbreviated, obtusely angulate, and not so longly extended backwards as in *X. tinae* (fig 25d). The holotype is illustrated.

Genus *Cetiothucha* Drake and Ruhoff, n. gen.

Head very short, feebly produced forward in front of eyes; cephalic spines not or poorly developed; bucculae areolate, closed in front. Rostrum long, reaching to end of sternal sulcus. Antenna long, slender; segment I slightly longer and not much thicker than II; III long, slender, much less than 2× as long as IV. Pronotum very short, without backward projection of hind margin, not covering elytral clavi, unicarinate; paranota narrow, upright, each composed of 1 complete and a partial 2nd row of areolae; anterior hood (laminal outgrowth of collar) extremely large, greatly inflated, extending forward over most of head, backwards over entire pronotum and basal part of elytra almost up to apices of discoidal area.

Elytra strongly divergent backwards, with apices separated from each other in resting position, each divided into the usual areal divisions; discoidal areas mostly covered by overhanging hinder part of anterior hood. Legs slender, femora scarcely swollen; all tarsi slender. Hind wings present. Hypocostal ridge short, finely areolate from base almost up to apex of abdomen, then becoming lower, ridge-like, and without cells.

Type species: *Cetiothucha physalia*, n. sp.

In outward appearance, this genus is similar to the Melanesian *Holophygdon* Kirkaldy, but differs greatly in origin of the outgrowth of the hood-like structure and slender tarsi. The hood in *Holophygdon* is paranotal in origin (1/2 on each side) and thus divided longitudinally, whereas that of *Cetiothucha* is single in formation and an outgrowth of the collar. The illustrations depict these marked differences in origin of their hoods.

Cetiothucha physalia Drake and Ruhoff, n. sp. Fig. 26 a-c.

SABAH (N. Borneo): Tenompok, 48 km E of Jesselton. SARAWAK: Sadong, Kampong Tapuh.

Brownish with areolae of elytra clear hyaline and those of pronotal hood slightly em-

browned; body beneath, including rostrum, brown. Legs and antennae brownish testaceous. Length 3.20 mm, width (near elytral apices) 2.00 mm.

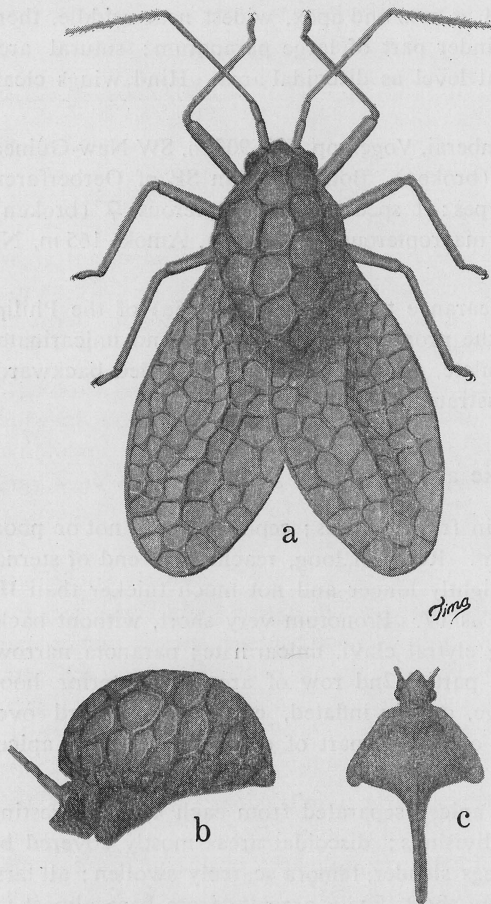


Fig. 26. *Cetiothucha physalia*, n. sp.: a, dorsal aspect of adult; b, lateral aspect of hood; c, pronotum showing narrow, elongated projection of hind margin.

Tenompok, 1460 m, 48 km E of Jesselton, Sabah (N. Borneo), 17-18.X.1958, Maa. Paratypes: 17 specimens same as holotype; 3 specimens same locality as holotype dated 10.VII.1958; 13 specimens same as allotype. All are macropterous.

The generic characters and illustrations separate *C. physalia* from members of the tribe Litadeini (in press) and genera of other tribes occurring on the islands of the South Pacific and Indian Oceans.

Head very short, unarmed; bucculae areolate, closed in front. Beak reaching to end of sternal sulcus; sulcal laminae areolate, closed behind. Antennal measurements: segment I, 12; II, 6; III, 55; IV, 40. Pronotum moderately convex, finely punctate, unicarinate; median carina hidden beneath hood, poorly represented; paranota narrow, upright, each composed of 1 row of quadrate areolae plus a partial 2nd row of 2 to 3 much smaller cells. Pronotal hood (collar) extremely large, extending forward nearly to apex of head and then backward almost up to apices of discoidal areas of elytra, measurements: length 110; width 72; height 65.

Elytra with apices widely separated in repose; costal area wide, 3 areolae deep in widest part, the areolae large, subequal in size to those in sutural areas; subcostal area very narrow alongside of discoidal area, then becoming larger apically; discoidal area extending backwards almost to middle of elytron, 3 areolae deep at apex and then tapering to a single areola at base, the areolets smaller than those in sutural area. Hind pair of wings a little longer than abdomen, whitish opaque. Legs slender, femora slightly thickened.

Holotype ♂ (BISHOP 3869), Borneo, Sandong, Kampong Tapuh, Sarawak, 300-450 m, 4-9.VII.1958, T. C. Maa; allotype ♀,

Tribe Ypsotingini Drake and Ruhoff (in press)

***Ypsotingis bakeri* Drake**

Ypsotingis bakeri Drake, 1958: 149, pl. 45, figs. a, b.

DISTRIBUTION: Borneo.

NEW RECORDS: SABAH (N. Borneo, SE): Forest Camp, 19 km N of Kalabakan, 15.X. 1962, Maa.

***Ypsotingis chlaina* Drake and Ruhoff, n. sp.**

SABAH (N. Borneo): Liawan; Ranau.

Elongate, testaceous to brownish with pronotal disc, paranota, crossbands of costal areas, and apical row of areolets in each elytron fuscous; body beneath blackish fuscous, shiny; buccular and sternal laminae of rostral sulcus testaceous. Antennae brownish, terminal segment missing. Legs brownish. Length 4.40 mm, width (elytra) 1.70 mm.

Head concealed dorsally by the enormous, reflexed paranota; short, scarcely prolonged in front of eyes, frontal spines short, porrect, hind pair longest, appressed; bucculae wide, areolate, closed in front. Rostrum long, brown, with tip resting on 2nd visible abdominal sternite; sternal laminae of sulcus whitish testaceous, open behind. Antenna very long, slender, smooth, measurements: segment I, 16; II, 8; III, 145; IV broken off. Hypocostal laminae uniseriate.

Pronotum moderately convex, punctate with backward projection areolate, tricarinate, lateral carinae largely concealed by upright paranota; median carina high, composed of 1 row of large areolae, at highest point almost as high as hood, areolae mostly higher than long; lateral carinae considerably elevated but not as high as median carina, each composed of 1 row of areolae. Hood fairly high, compressed laterally with side tapering backward. Paranotum extremely large, semiglobose with fore ends touching each other and then divergent posteriorly, longer than high (90:110), each nearly semiglobose in shape.

Elytra wider and much longer than abdomen, nearly parallel-sided, with sutural area overlapping so as to be jointly rounded apically in rest posture; costal area wide, mostly 2 areolae wide, often with 1 or 2 intercalary areolae opposite apex of discoidal area; subcostal area narrow, vertical, 2 areolae deep as far as apex of discoidal area, thence only 1 cell wide; discoidal area scarcely extending beyond middle of elytron, narrowed at each end, 5 or 6 areolae wide at middle, the areolae smaller than those in sutural area; sutural area large, areolae subequal in size to those in costal area.

Holotype macropterous ♀ (BISHOP 3870), Liawan, Sabah (N. Borneo), 14-19. I. 1959, T. C. Maa. Paratypes: 2 macropterous ♀♀, Ranau, 500 m, Sabah (N. Borneo), 28. IX-7. X. 1958, Quate.

The much shorter rostrum and lower lateral carinae separate it from *Y. sideris* Drake; and it differs from *Y. bornea* Drake by the longer form and upright paranota.

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NOTES ON THE SYNONYMY OF BRADYSIA TRITICI (COQUILLET) AND LYCORIELLA MALI (FITCH) (Diptera: Sciaridae)

The following notes are based on a study of North American Sciaridae involving a generic revision of the family. Since both *Bradysia tritici* (Coquillett) and *Lycoriella mali* (Fitch) are of some economic importance and are being studied cytogenetically, it is desirable to publish the valid names now. I have studied the sciarid types involved, except the cotype material of *Sciara pauciseta* Felt, and am designating a lectotype for *Lycoriella mali*.

Bradysia tritici (Coquillett), n. comb.

Sciara ocellaris (Osten Sacken): Comstock, 1882, *In* Riley, Report Comm. Agric. 1881 & 1882, p. 203 (error in association of undescribed adult sciarid with larva of *Cecidomyia ocellaris* Osten Sacken).

Sciara ocellaris Comstock: Mik, 1883, Verh. Zool. Bot. Ges. Wien **33**: 190 (Mik erroneously credited the specific name to Comstock).

Sciara tritici Coquillett, 1895, *Ins. Life* **7** (5): 408 (holotype ♂ in USNM coll.)

Neosciara ocellaris (Comstock): Pettey, 1918, *Ann. Ent. Soc. Amer.* **11**: 323.

Neosciara tritici (Coquillett): Pettey, 1918, *Ann. Ent. Soc. Amer.* **11**: 322

Sciara garretti Shaw, 1952, *Proc. Hawaii. Ent. Soc.* **14**: 495 (part of holotype ♂, wing, in USNM coll.; part, wing and terminalia, Shaw's coll.; remainder missing). **New Synonymy.** For additional synonyms of *Sciara garretti*, see Hardy, 1960, *Ins. of Hawaii* **10**: 221.

Bradysia ocellaris (Comstock): Tuomikoski, 1960, *Ann. Zool. Soc. 'Vanamo'* **21** (4): 133. (Tuomikoski indicated that *tritici* was possibly synonymous with *ocellaris* and discussed Old World synonymy of this species).

Lycoriella mali (Fitch), n. comb.

Molobrus mali Fitch, 1856, First and second reports noxious, beneficial and other insects N. Y., p. 254. (lectotype ♂, labelled "Fitch", by present desig., in USNM coll.).

Sciara mali (Fitch): Osten Sacken, 1858, *Smiths. Misc. Collect.*, p. 11.

Sciara pauciseta Felt, 1898, *In* Lintner. N. Y. State Mus. Report **50**(1): 224. (cotype ♂♂ in N. Y. State Museum, Albany; cotype ♂ in USNM coll.). **New Synonymy.** I have not seen the cotype material at Albany, but examination of the cotype material at the USNM and Felt's good description justifies this action.

Neosciara pauciseta (Felt): Pettey, 1918, *Ann. Ent. Soc. Amer.* **11**: 323.

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