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## PAPUAN—WEST POLYNESIAN HISPINE BEETLES

(Chrysomelidae)<sup>1</sup>

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This paper is a supplement to "Hispine beetles from the South Pacific" (1957, *Nova Guinea*, n. s. 8: 205–324) although the geographical scope of this paper is more restricted. The former paper covered all the hispine beetles known from Celebes and eastward and southeastward as far as they occur in the Pacific, except that only the northernmost part of Australia was included. The group is lacking from New Zealand and areas of Polynesia eastward of Micronesia and Samoa.

The scope of this paper includes the Papuan Subregion (less the Moluccas; thus New Guinea, northernmost Australia and the Solomon Is.), and the western Polynesian (E. Melanesia) area according to the zoogeographical plan I put forward in 1956 (*Syst. Zool.* 5: 11–37, 47), less Fiji, plus New Caledonia. In the ethnogeographic sense, this paper covers Melanesia, less Fiji and plus Norfolk I. and Lord Howe I. Micronesia, Fiji, Tonga and Samoa are not treated in this paper as no additional material is at hand.

Most of the new material treated in this paper was taken by me during 1957–9 on my third to fifth trips to New Guinea (including third and fourth to the Bismarcks, second and third to the Solomon Is. and first to the New Hebrides and New Caledonia). Other specimens were collected in Netherlands New Guinea in 1957 by D. E. Hardy and in 1959 by T. C. Maa, in NE New Guinea in 1956 by E. J. Ford, Jr., and in Papua during the past few years by W. W. Brandt. All the material is in Bishop Museum except duplicates to be deposited in other museums. This paper must be considered as only the first supplement, as much material has not been processed, or has been set aside until more material has been processed or collected. In the first paper 138 species were treated. Of those, 95 were recorded from the areas covered in this paper. At this time this number is raised to 141, by the description of 46 new species.

Herein are described for the first time immature stages of 43 species, including the

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first information on immature stages of several genera.

References and synonymy are not included in this paper, except for the page reference to the preceding article (*Nova Guinea* 8: 205-324) in cases where material was described therein. The abbreviations used are listed in *Pacific Insects* 1: 60.

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In connection with my field work I am much indebted to Drs. J. J. H. Szent-Ivany, D. Metselaar, Mssrs. G. Dun, R. T. Simon Thomas, J. van den Assem, M. van Driest, C. Vink, P. G. Gesswein, W. G. F. Winia, Mahler, M. Flach, H. W. van Rinsum, Temminck, Stachiew, Evers, Le Roux, T. C. Maa, J. Healy, St. George, R. Cottle, J. White, L. J. O'Malley, P. Herman, S. Doumany, R. Mason, C. Jack-Hinton, B. Stone, W. Wright, A. Collins and G. G. Carter.

#### ZOOGEOGRAPHIC NOTE

The material here reported upon strongly corroborates the views presented in the 1957 paper (*Nova Guinea*, n. s. 8: 207-9). Briefly, this thesis is that New Guinea's main ancient faunal source was SE Asia, and thus New Guinea and other areas treated here are parts of the Oriental Region. This relationship is more conspicuous for the Hispinae than for some other groups of insects, such as shown by me for the lower subfamilies of Cerambycidae (1959, *Pac. Ins.* 1: 59-171), where nearly one-third of the species were of possible Australian relationship.

The Hispinae is a tropical group and, although represented sparingly in North Asia and Canada, has no genera or even tribes in common between the Old and New Worlds. The group is absent from New Zealand and poorly represented in Australia. Of the three truly Australian genera, only one is known to occur in New Guinea, but several Oriental (incl. Papuan) genera reached northern Australia. The new species here described from Norfolk I. represents the southeasternmost known record for the subfamily in the Pacific.

One interesting trend shown here is that the generic ranges are proving not as strictly limited as was earlier supposed. Genera believed limited to the Solomon Is. or Bismarcks are being detected on New Guinea, and vice versa. Also, on New Guinea there appears to be more localization of species than originally supposed, even though few species are found even at medium-high altitudes (Gressitt, 1959, Host relations and distribution of New Guinea hispine beetles. *Haw. Ent. Soc., Proc.* 17: 70-75, map).

After doing field work both in the New Hebrides and E Solomon Is., I am convinced that as far as insects are concerned, the New Hebrides are to be considered oceanic and the Solomon Is. continental. The contrast in richness and representation of genera is very great. The insect fauna of the New Hebrides has many of the aspects of those of Micronesia, Samoa, Tonga and Fiji. All of these latter island groups lack many subfamilies and genera represented in New Guinea and the Solomon Is. There are only 6 hispines known from Micronesia, 2 from Samoa, 1 from Tonga, and 2 from Fiji. Possibly no additional species remain to be discovered in those areas. Only 2 species are known from the New Hebrides, and probably few if any additional remain to be added. (The

*Leptispa* sp. listed from the New Hebrides in the previous paper, p. 216, is now believed to have been mislabelled, and to be actually from SE Asia.) However, at least 7 species (3 or more precinctive genera) occur on New Caledonia, and probably more exist there. This, again, indicates much greater age for New Caledonia than for the New Hebrides. One precinctive species each (both *Brontispa*) occur on Norfolk I. and Lord Howe I.

Another interesting point to note is the close relationship of certain species from Biak, Manus, New Ireland and New Britain. This has been noted in other groups by earlier workers. On the other hand, other New Britain species have their closest relatives on the New Guinea mainland.

#### KEY TO TRIBES

1. Side of prothorax and elytron without spines ..... 2  
    Side of prothorax and elytron with spines ..... **Hispini**
- 2 (1). Body rarely very broad, rarely smooth and flattened; elongate or tuberculate  
    and broadened behind ..... 3  
    Body very broad, smooth and flattened; prothorax very broad and distinctly  
    and evenly margined laterally, a seta arising from each basal angle... **Callispini**
- 3 (2). Tarsal claws paired, divaricate ..... 4  
    Tarsal claws single; prothorax subcylindrical, convex anteriorly; elytron acute-  
    ly produced apically ..... **Eurispini**
- 4 (3). Body more or less parallel-sided, rarely broad, not angularly widened posteri-  
    orly ..... 5  
    Body broad, tuberculate, angularly widened at posterior angle of elytron .....  
    ..... **Choeridionini**
- 5 (4). Prothorax generally constricted before and behind middle, or irregular, gene-  
    rally with a seta arising from each basal angle; elytron generally without  
    an extra scutellar row of punctures ..... 6  
    Prothorax generally narrowed anteriorly, subparallel-sided basally, sometimes  
    widened at anterolateral angles, without a seta from each basal angle; ely-  
    tron generally with an extra scutellar row of punctures; head generally  
    with an interantennal process ..... **Cryptonychini**
- 6 (5). Prothorax somewhat constricted before and behind middle, generally as broad  
    at apex as at base, without a distinct margin ..... 7  
    Prothorax irregular, often broadened at middle and narrowed at apex, often  
    with a partly prominent margin; elytron generally with a few prominent  
    costae ..... **Gonophorini**
- 7 (6). Antenna with segments often irregular in length, in part fused or reduced in  
    number; hind femur not very long ..... **Coelaenomenoderini**  
    Antenna with segments normal, 11 in number; hind femur fairly long; elytron  
    regular, without distinct carinae ..... **Promecothecini**

## TRIBE CALLISPINI

Genus *Hispodonta* Baly, 1858

## KEY TO ADULTS

1. Head and prothorax black ..... 2  
Head and prothorax pale, testaceous to red ..... 3
- 2 (1). Elytron entirely pale, rather long, very finely punctured ..... **delkeskampi**  
Elytron red (or yellow) anteriorly, blackish blue on posterior 2/5, fairly broad,  
with very distinct punctures ..... **chapuisi**
- 3 (1). Elytral disc largely black or metallic ..... 4  
Elytral disc pale on at least basal 1/3 ..... 5
- 4 (3). Scape moderately produced forward below; scutellar puncture-row simple; body  
suboblong ..... **discalis**  
Scape strongly and obliquely produced forward below; scutellar puncture-row  
compound; body ovate ..... **metroxylona**
- 5 (3). Elytron pale on basal 1/3; pronotum subtransverse anteriorly ..... 6  
Elytron pale on basal 2/3; pronotum convex anteriorly, punctured only near  
base, slightly raised along median line; sternites mostly black ..... **depressa**
- 6 (5). Body broadly ovate; pronotum sparsely and irregularly punctured; scutellar  
puncture-row regular; lateral elytral margin pigmented ..... **loriae**  
Body suboblong; pronotum much more heavily punctured near base than in  
apical and central portions; scutellar puncture-row somewhat irregular; late-  
ral and apical elytral margin entirely pale ..... **palmicola**

## KEY TO LARVAE

1. Explanate margins of tergites largely vermiculate-striate, with rather few punctures;  
sides above body proper wrinkled ..... 2  
Explanate margins of tergites rather closely punctured; sides above body proper  
sparsely punctured; median pronotal ridge thickened in middle ..... **metroxylona**
2. Mesothoracic spiracle ovate, situated nearly 1/3 distance from anterior to posterior  
margins, and nearly 1/3 distance from external margin to median line..... **palmicola**  
Mesothoracic spiracle narrowly reniform, situated 1/4 distance from anterior to  
posterior margins, and 1/4 distance from external margin to median line ... **chapuisi**

***Hispodonta delkeskampi*** Uhmann, 1951

DISTRIBUTION: NE New Guinea (Sattelberg, Huon Pen.; ZMB).

***Hispodonta chapuisi*** Gestro, 1885 Fig. 1, a, b.

One adult, near Fak Fak, 200 m, on *Heterospathe*-like palm, 9 June 1959, Gressitt; several larvae, in petiole-bases of *Pinanga* palm, Bomberi, 4-6 June 1959, Gressitt.

*Larva*: Broadly ovate, nearly as broadly rounded posteriorly as anteriorly, moderately convex. Dorsum largely feebly rugose, slightly vermiculate; somewhat granulose on center of pronotum, with 3 feeble ridges radiating forward but not reaching margins, median

ridge with a small pit near anterior end; expansions of posterior abdominal tergites largely punctured at side. Ventral surfaces of body proper smooth and weakly sclerotized; undersurfaces of lateral expansions feebly punctured internally and longitudinally striate externally. Length 14.4 mm; breadth 8.4.

HOSTS: *Pinanga*, *Heterospathe* (?).

DISTRIBUTION: W New Guinea (Andai, Vogelkop; GENOVA).

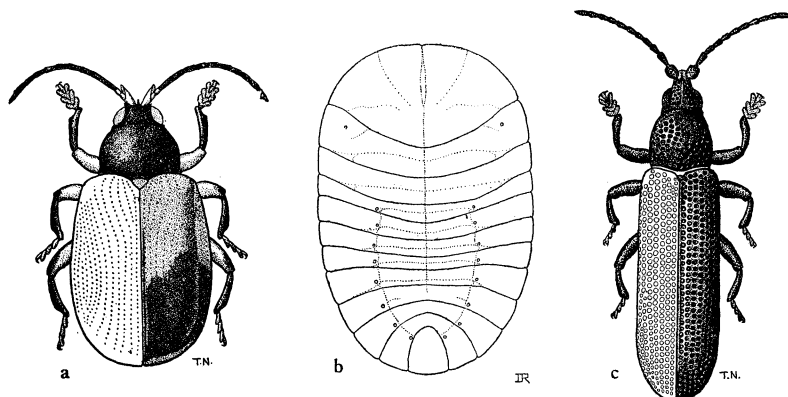


Fig. 1. a, *Hispodonta chapuisi* Gestro; b, same, dorsal view of larva; c, *Palmispa korthalsivora* n. sp.

***Hispodonta discalis* Gressitt, 1957 (p. 212, f. 1)**

One specimen, questionably this species, Maprik, Sepik Distr., on *Metroxylon*, 14 Oct. 1957, Gressitt.

HOST: *Metroxylon* (sago palm).

DISTRIBUTION: N New Guinea (Maffin Bay; CAS).

***Hispodonta metroxylona* Gressitt n. sp.**

Testaceous (reddish in life), with elytron black tinged with blue-green except oblique pale scutellar area reaching to end of basal 1/3 of suture, and apical pale area; lateral margin pitchy; antenna slightly darkened distally; central portions of abdominal sternites 2-5 pitchy.

Head evenly convex above, feebly grooved transversely between posterior margins of eyes, a single fovea between eyes. Antenna slightly over 1/2 as long as body; scape nearly twice as long below as above, obliquely rounded apically; segment 2 hardly exceeding end of 1; 3 longer than 8-10 combined; 4th  $2/5 \times 3$ ; 4 = 5; 6 = 7, shorter than 5; 7-10 decreasing in length; 11 longer than 4. Prothorax  $2/3$  as long as broad, transverse anteriorly, evenly rounded at side to near base, then curved slightly outward and toothed at basal angle; disc moderately convex, smooth, finely punctured on posterolateral portion, very sparsely punctured on posterior  $3/5$  of central portion. Scutellum short, rounded behind. Elytron fully twice as long as head and prothorax combined, broadly convex at side, rounded apically; disc rather convex, slightly depressed at side between humerus and middle, with regular rows of fairly small punctures on sutural  $1/2$ , oblique anteriorly

and longitudinal posteriorly, scutellar row compound and irregular, and punctures closer and less regular externally; margins irregularly punctured. Ventral surfaces nearly impunctate. Legs slender; hind femur not quite reaching middle of abdominal segment 3. Length 8 mm; breadth 4.2.

Holotype (BISHOP 2959), Madang, 2 m, 27 October 1958, on *Metroxylon*, Gressitt; several paratypes, and larvae, same data.

Differs from *H. discalis* in being smaller, more ovate, more convex, with elytral margins darker and scutellar puncture-row confused and compound.

*Biology*: Larvae feed between petiole bases and trunk of sago palms; adults feed on undersides of new, pink fronds.

*Larva*: Brown, paler on expanded borders. Dorsum finely rugose above body proper and punctured on expansions; pronotum somewhat granulose at center, with 3 radiating ridges, median one fine, swollen anterior to middle, finely grooved posteriorly. Mesothoracic spiracle situated behind anterior margin of mesonotum well external to body proper.

HOST: *Metroxylon* (sago palm).

DISTRIBUTION: NE New Guinea.

***Hispodonta depressa* Gestro, 1906**

DISTRIBUTION: W New Guinea (no loc.; PARIS).

***Hispodonta loriae* Gestro, 1913**

DISTRIBUTION: S Papua (Purari R.; GENOVA).

***Hispodonta palmicola* Gressitt, n. sp.**

Reddish ochraceous (testaceous in dried specimen), greenish black on posterior 2/3 of elytral disc except for posterior portion of suture; antenna reddish, reddish castaneous on segments 2-5, pitchy black, tinged with reddish on 6-11. Body nearly glabrous with some pale pubescence on distal portions of tibiae and upper surfaces of tarsi besides tarsal pads.

Head broader and deeper than long, extending only slightly anterior to eyes; cephalic process 1/3 as long as scape, narrow, blunt apically, compressed in middle and vertical in front; inter-ocular area rather smooth, micropunctulate, shallowly grooved medially; postoccipt feebly constricted, almost impunctate. Antenna less than 1/2 as long as body, moderately slender, feebly compressed distally; scape longer than broad, much longer below than above; segment 2 barely longer than broad; 3 twice as long as 1+2 and twice as long as 4; 4-6 decreasing slightly in length; 6-10 subequal; 11 as long as 4. Prothorax 1/3 broader than long, obtusely rounded at sides, subtransverse anteriorly, slightly emarginate at anterolateral corner; posterolateral angle subacute and slightly projecting; disc evenly convex, in part feebly grooved medially and with widely scattered moderate to small punctures, which are almost lacking on anterior 1/3 and quite sparse on central portion. Scutellum broader than long, broadly rounded behind. Elytron 3× as long as head and prothorax combined, rather broadly expanded at side, with lateral margin slightly widened to end of basal 1/5 and very slightly broader at end of second 1/3, nearly parallel in central portion; disc with 5 rather widely spaced suboblique rows of small punctures

on sutural 1/2 of pale portion, continuing posteriorly and becoming lost in fine irregular puncturation on apical 1/3; outer portion of pale area with partly irregular rows, becoming less regular on black area and changing to fine irregular puncturation at middle; margins distinctly punctured. Ventral surfaces shiny, almost impunctate. Legs flattened; hind femur reaching end of abdominal segment 2. Length 10.7 mm; breadth 4.85.

Holotype, ♀ (BISHOP 2914), Kampong Landbouw, 45 m, interior SE Biak, 27 May 1959, on sago palm and another slender-leaved palm, Gressitt. Paratypes and larvae, same data.

Differs from *H. discalis* in being larger, more parallel-sided, with smoother and more finely punctured pronotum and more even and more densely punctured elytron.

*Biology*: The immature stages are found between the petiole base and main trunk of palms. They are generally to be found near the extreme bases of petioles and are not seen unless the entire frond is detached. The adults are found on the undersides of new palm fronds, generally before they are fully expanded and green. On sago palms they are found when the fronds are still pink.

*Larva*: Resembling a large scale insect; rounded-oval with even regular margin formed by wide expansions of all segments from prothorax to caudal abdominal segment; expansion extending forward of head for a distance much greater than length or width of head, at side of thorax wider than 1/2 width of body proper and at side of abdomen wider on one side than width of abdomen proper, and width at caudal end nearly as great as at anterior end. Dorsal surface evenly convex, with 3 feeble ridges radiating forward from a slightly more rugose central area of pronotum above head; remainder of tergites largely finely rugose above body proper and feebly punctured on lateral expansions. Mesothoracic spiracle well behind anterior margin, less than 1/3 distance from external margin to median line; abdominal spiracles dorsal, but hardly projecting. Length 13 mm; breadth 8.65.

HOSTS: *Metroxylon* and other palms.

DISTRIBUTION: Biak I.

#### TRIBE EURISPINI

#### Genus *Eurispa* Baly, 1858

#### KEY TO ADULTS

- Prothorax nearly twice as long as breadth at anterior end; body black with pronotum and elytron pale testaceous, the latter slightly ferruginous apically; length 9.25 mm ..... **loriae**
- Prothorax 5/6 as broad as long; largely pale; pronotum shiny, very closely punctured; occiput and pronotum with fine hairs; length 7-8 mm ..... **normalis lamingtona**

*Eurispa loriae* Gestro, 1892

DISTRIBUTION: Papua (Hula, SE of Port Moresby; GENOVA).

*Eurispa normalis lamingtona* Gressitt, 1957 (p. 215)

DISTRIBUTION: Papua (Mt. Lamington; AM).

TRIBE CRYPTONYCHINI

KEY TO GENERA

1. Elytron without an extra scutellar row of punctures..... 2  
Elytron with an extra scutellar row of punctures ..... 3
- 2 (1). Anterior border of prosternum produced to form a "Kinnplatte"; prothorax with a tubercle at side near anterior corner; elytron with a strong submedian rib ..... **Torquispa**  
Anterior border of prosternum not produced; prothorax plain; elytron without any strong ribs ..... **Calamispa**
- 3 (1). Prothorax with anterior corner rounded or toothed, not obliquely truncate or narrowed ..... 4  
Prothorax with anterior corner obliquely truncate or narrowed ..... 6
- 4 (3). Interantennal process not curved upward distally; elytral puncture-rows subequally spaced ..... 5  
Interantennal process curved upward distally like a thorn; elytron with alternate interstices distinctly broadened and raised ..... **Caledonispa**
- 5 (4). Anterior and posterior corners of pronotum each with 2 teeth ..... **Octodonta**  
Anterior corner of pronotum rounded and expanded; posterior corner simple or with 1-2 small teeth or angles ..... **Brontispa**
- 6 (3). Cephalic process normal, interantennal ..... 7  
Cephalic process flat, inferior, protruding below antennal insertions ..... **Palmispa**
- 7 (6). Interantennal process longer than, or at least nearly as long as, scape in ♂ ..... 8  
Interantennal process much shorter than scape in both sexes..... 10
- 8 (7). Anterior corner of prothorax sublongitudinally oblique, with 1-2 angles or teeth; antenna with 11 segments ..... 9  
Anterior corner of prothorax transversely oblique, without any projecting angles or teeth; antenna with 10 segments ..... **Oxycephala**
- 9 (8). Body slender; interantennal process no longer than scape; pedicel nearly as long as scape ..... **Plesispa**  
Body generally broad; interantennal process long, often longer than scape; pedicel much shorter than scape ..... **Ceratispa**
- 10 (7). Interantennal process much less than 1/2 as long as scape; prothorax simply narrowed anteriorly; alternate elytral interstices raised ..... 11  
Interantennal process nearly 1/2 as long as scape; prothorax with a projecting angle before narrowed apex; alternate elytral interstices neither broadened nor raised..... **Aulostyrax**
- 11 (10). Alternate elytral interstices raised more or less throughout; last ridge not hiding lateral border of elytron ..... **Callistola**  
Alternate elytral interstices raised only in posterior 1/2; last ridge hiding lateral border of elytron in dorsal view..... **Isopedhispa**



Genus *Palmispa* Gressitt, new genus

Body nearly 4.5× as long as broad. Head about as broad as long; central portion narrowed anteriorly; cephalic process not interantennal, but formed of a broad flat plate beneath antennal insertions, consisting of continuation of surface of frontoclypeus, and widest distally. Antennal segment 2 nearly as long as scape. Prothorax about as broad as long, feebly, and somewhat evenly rounded at side, slightly narrowed at apex and base, narrower at apex than at base, and deeply punctured. Elytra narrow, almost perfectly parallel-sided, evenly conjointly rounded apically, with apical margins explanate, 4× as wide as flattened portions of lateral margin. Legs short.

Generotype: *Palmispa parallela* n. sp.

Range: New Guinea.

Differs from other Papuan genera of Cryptonychini in being narrower, more parallel-sided, in having the prothorax more barrel-shaped and the cephalic process horizontally flattened, situated beneath antennal insertions, and broadest distally. Further differs from *Plesispa* in having the central portion of head narrowed instead of widened anteriorly, the prothorax more cylindrical and the elytral punctures larger. This is the only hispine genus known at present to be limited to New Guinea.

## KEY TO ADULTS

Antenna and legs testaceous; ventral surfaces brown; dorsum dull pitchy black with apical elytral margin brown; antennal segments 1–2 somewhat ovate ..... **parallela**  
 Body entirely shiny black except for pale tarsi; antennal segments 1–2 cylindrical ...  
 ..... **korthalsivora**

***Palmispa parallela* Gressitt, n. sp.**

Black to pale testaceous; head pitchy black above, becoming reddish anteriorly, ochraceous beneath and on cephalic process; antenna brownish ochraceous, slightly duller distally; prothorax pitchy black above, reddish pitchy at side; scutellum black; elytron blackish pitchy tinged with reddish; ventral surfaces reddish brown, darker on metasternum; legs pale yellowish testaceous. Body nearly glabrous, even on frontoclypeus; fore tibia partly pubescent internally.

Head with vertex projecting moderately anterior to eyes, upper surface with close punctures of various sizes, and cephalic process broadest anteriorly, as wide as inferior interocular space, slightly arcuate apically, and reaching end of basal 1/3 of scape; frontoclypeus smooth. Antenna reaching slightly beyond humerus, fairly slender beyond segment 2; scape large, subcylindrical, longer than broad; 2 very slightly shorter and more slender than scape; 3 a little shorter than 2 and longer than 4; 5 barely longer than 4; 6=4; 7=5; 8=6; 8–10 subequal; 11 longest. Prothorax similar at apex and base, coarsely and closely punctured. Scutellum short, rounded behind. Elytron slender, straight at side, with 8 regular rows (10 preapically) of deep large punctures, besides a sutural row of 4 punctures. Ventral surfaces largely impunctate or minutely punctulate, except for gross punctures at side of metasternum and abdominal sternite 1. Legs moderately stout; hind femur reaching a little beyond end of abdominal sternite 1. Length 4.6 mm; breadth 1.05.

Holotype, ♂? (BISHOP 2915), S of Bainyik, near Maprik, 150 m, Sepik Distr., 15 Oct. 1957, on *Korthalsia beccarii*, a rattan, Gressitt; 3 paratopotypes, same data.

Differs from relatives in its slender, cylindrical build and in having the horizontally flat cephalic process.

HOST: *Korthalsia beccarii*.

DISTRIBUTION: NE New Guinea (Sepik).

***Palmispa korthalsivora*** Gressitt, n. sp.      Fig. 1, c.

*Male*: Black, slightly reddish on apex and base of antenna, side of head, parts of side of thorax and middle of basal abdominal segments; palpi and tarsi ochraceous; coxae reddish brown. Body glabrous except for tarsi and apices of tibiae.

Head about as long as broad, parallel-sided behind eyes; central portion longer than broad, slightly narrowed anteriorly, with rounded anterior angle finely grooved medially with remainder subregularly punctured; cephalic process obsolete above, consisting of slightly broadened extension of frontoclypeus which is slightly convex apically and reaches to end of basal 1/3 of scape; postociput feebly constricted anteriorly, heavily punctured. Antenna 2/5 as long as body, moderately compressed distally; scape stout, nearly twice as long as broad; segment 2 narrower and slightly shorter, distinctly broader and a little longer than 3; 4 and 5 equal, each 3/4 as long as 3; 6 slightly shorter than 5; 7=5; 8-10 equal, about as long as 6; 11 as long as 3. Prothorax nearly as broad as long, narrowed at apex and base, somewhat evenly convex at side; disc moderately convex, closely punctured. Scutellum as broad as long, obtuse behind. Elytron 2.35× as long as head and prothorax combined, nearly parallel-sided, very slightly narrowed just anterior to middle, narrowed and rounded apically; disc heavily punctured in subregular rows, with 8 rows anterior to middle and 10 somewhat irregular rows before apex; interstices not forming regular ridges; apical margin much broader than lateral margin. Ventral surfaces in large part feebly punctured but with very heavy punctures on side of thorax. Legs fairly slender; hind femur reaching beyond middle of abdominal segment 2. Length 4.7 mm; breadth 0.8.

Holotype, ♂ (BISHOP 2916), between Lae and Bubia, 5 m, on undersides of unfolding new leaflets of *Korthalsia beccarii*, 21 July 1959, Gressitt.

Differs from *P. parallela* in being almost entirely black and more shiny and more heavily punctured with the cephalic process slightly shorter.

HOST: *Korthalsia beccarii*.

DISTRIBUTION: NE New Guinea.

Genus ***Octodonta*** Chapuis, 1875

KEY TO ADULTS

1. Cephalic process much less than 1/2 as wide as long; antennal segments 2-4 not widened externally..... 2
- Cephalic process more than 1/2 as wide as long; antennal segments 2-4 slightly widened externally ..... ***korthalsiae***

2. Anterior thoracic tooth narrower than its distance from lateral margin; space between posterolateral, and posterior, tooth less than width of an elytral puncture-row ..... **subparallela**  
 Anterior thoracic tooth as wide as its distance from lateral margin; space between posterolateral, and posterior, tooth as great as width of an elytral puncture-row ..... **maffinensis**

## KEY TO LARVAE

1. Lateral process of abdominal segments 1, 2 and 8 minute, or short and stout; caudal process with arm feebly toothed at side, with outer distal tooth much smaller than inner, and emargination shallow..... 2  
 Lateral process of abdominal segments 1, 2 and 8 long and slender; caudal process with arm strongly arched, strongly toothed at side, with outer distal tooth nearly as large as inner tooth, and emargination fairly deep..... **korthalsiae**
2. Lateral process of abdominal segment 8 minute; caudal process with arm bearing very small lateral teeth, and outer distal tooth quite small..... **subparallela**  
 Lateral process of abdominal segment 8 stout and short; caudal process with arm bearing moderate lateral teeth, and outer distal tooth nearly 1/2 as large as inner..... **maffinensis**

**Octodonta subparallela** Spaeth, 1936 (p. 217, f. 2 b-d, f, g)

Several specimens, Lae-Bubia, on *Korthalsia* and *Metroxylon*, 21 July 1959; Madang, on slender-leafed rattan, 22 Oct. 1958; and Wewak, latter host, 25 June 1959, Gressitt. Two, Auki 2 m, Malaita, on *Calamus*, 2 Oct. 1957; near Kukundu, 12 m, Kolombangara I., 10 July 1959, Gressitt.

HOSTS: *Calamus* spp., *Korthalsia beccarii*, *Metroxylon* sp.

DISTRIBUTION: NE New Guinea, New Britain, New Ireland, New Georgia group, Malaita.

**Octodonta maffinensis** Gressitt, 1957 (p. 219, f. 2 a, e) Fig. 2, a, b.

*Submature larva*: Pale testaceous with brown mouthparts and 4 black eyes on one side. Head grooved medially, granulose to rugulose, with setae about as long as antenna. Pronotum well over twice as broad as long, finely reticulate, with a fine median groove; lateral process of meso- and metathorax short and blunt. Abdominal tergites finely granulose or reticulate, each with a sinuous transverse groove; lateral processes somewhat stout and irregular, with lateral tubercles and setae, mostly about 1/5 as wide as respective tergite, but 8th barely longer than broad; caudal process stout, with 3-4 lateral teeth on each outer margin, with arm short, fairly broad, with outer tooth nearly 1/2 as large as inner tooth.

Adults and larva, Waris, NE Neth. New Guinea, on rattan, 16 Aug. 1959, T. C. Maa.

HOST: Rattan palm.

DISTRIBUTION: NC New Guinea.

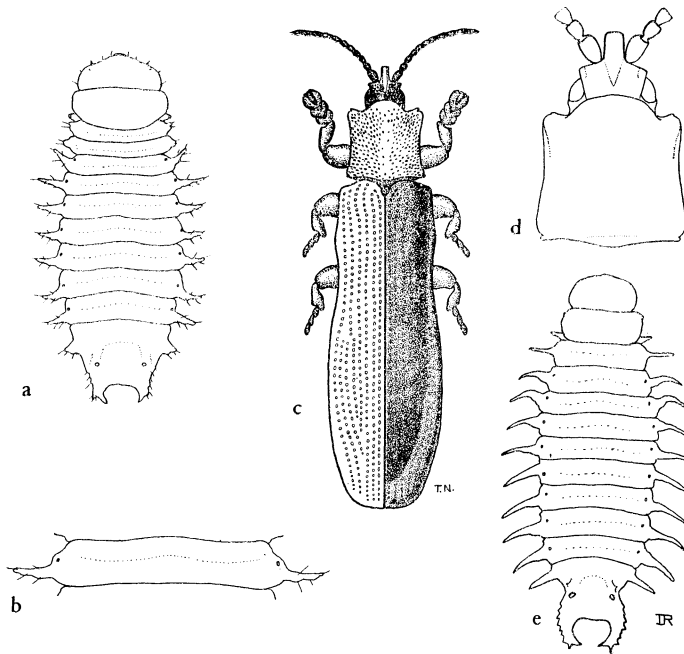


Fig. 2. a, *Octodonta maffinensis* Gressitt, dorsal view of larva; b, same, dorsal view of middle abdominal segment; c, *O. korthalsiae* n. sp., ♂; d, same, outline of head and prothorax of ♀; e, same, larva.

***Octodonta korthalsiae* Gressitt, n. sp.** Fig. 2 c-e.

*Male*: Pale chestnut brown, pitchy black on distal 2/5 of antenna, brownish ochraceous on abdomen. Body nearly glabrous with a very few sparse hairs on frontoclypeus, a little pubescence on endoapical portions of tibiae, besides tarsal pads.

Head slightly broader than long, slightly narrowed behind eyes; central portions much broader than long, wider anteriorly than posteriorly and angulate anterolaterally, grooved medially and rugose-punctate on remainder; cephalic process as long as central portion of head, rectangular, fully 1/2 as broad as long, slightly concave on each side of middle, truncate apically and slightly concave beneath; postocciput constricted above, finely and sparsely punctured. Antenna less than 1/3 as long as body; scape stout, thickest in middle; segment 2 as broad as long; 3 slightly longer, barely longer than 4; 4-6 subequal; 7 distinctly longer than 6; 8-10 subequal, each about as long as 6; 11 slightly longer than 7. Prothorax slightly broader than long, strongly rounded anteriorly, moderately constricted just anterior to middle; anterolateral corner with 2 teeth, 1st obtuse and 2nd rounded; posterolateral angle somewhat rounded with a rather small accessory tooth set somewhat away from corner; disc feebly swollen, rather densely punctured on side, median line on central portion impunctate except for sparse minute punctures along median line and on apical portion and middle of basal portion. Scutellum slightly longer than broad, narrowed and obtuse apically. Elytron 2.4× as long as head and prothorax combined, slightly widened at end of basal 1/6, then narrowed and gradually widened to somewhat behind

middle, narrowed and broadly rounded apically and slightly emarginate near sutural angle; disc impressed with rather close, deep, elliptical punctures with alternate interstices slightly raised beyond middle and the 1st 2 of these carinate apically but not quite reaching external margin; sutural puncture-row lacking. Ventral surfaces largely smooth and finely punctured, with some coarse punctures on side of metasternum. Legs stout; hind femur barely reaching apex of abdominal sternite 1; fore femur flattened and bluntly toothed. Length 7.1 mm; breadth 1.35.

Holotype, ♂ (BISHOP 2917), between Lae and Bubia, 5 m, on *Korthalsia beccarii*, 21 July 1959, Gressitt.

Differs from *O. subparallela* and *maffinensis* in being more elongate with cephalic process longer and much broader, central portion of head much shorter, and the angles of the prothorax less equal. Similar in some respects to *Brontispa serricornis*, although agreeing with accepted generic characters of *Octodonta*. When both sexes and immature stages of both species are known, it may be necessary to unite them in a new genus.

*Biology*: Larvae and adults were found together inside a sheath on a new terminal shoot of a fish-tail rattan.

*Larva*: Pale creamy white. Head nearly twice as broad as long, depressed anterior to middle and grooved medially for a short distance behind depression, finely grooved obliquely from posterior end of depression to just behind antenna; eyes pale; side of head with about 5 setae mostly slightly longer than antenna. Mesothoracic spiracle very much larger than abdominal spiracle; lateral processes of abdominal segments slender, mostly about as long as length of head, 1st shortest and 7th longest; caudal fork broad, arcuate at side; arm curved inward and acute but with a strong accessory spine forming posteriormost extension; ridges on top and side of arm each with several moderate teeth.

HOST: *Korthalsia beccarii*.

DISTRIBUTION: NE New Guinea.

### Genus *Brontispa* Sharp, 1903

#### KEY TO ADULTS

1. Antenna not serrate ..... 2  
    Antenna serrate on middle antennal segments ..... **serricornis**
- 2 (1). Anterolateral angles of prothorax not distinctly protruding, more or less in line  
       with side ..... 3  
    Anterolateral angles of prothorax distinctly protruding ..... 4
- 3 (2). Prothorax red; elytron entirely shiny black; pronotal punctures mostly smaller than interspaces ..... **eversi**  
    Prothorax orange; elytron with an orange stripe on basal 1/2; pronotal punctures mostly larger than interspaces ..... **simonthomasi**
- 4 (2). Cephalic process not exceeding antennal segment 2 in ♂ ..... 5  
    Cephalic process reaching end of antennal segment 3 in ♂, acute apically ... **calami**
- 5 (4). Central portion of head longer than broad ..... 6  
    Central portion of head broader than long ..... 8
- 6 (5). Central portion of head broadened anteriorly; cephalic process about as long

- as scape in ♂ ..... 7  
 Central portion of head narrowed anteriorly; cephalic process probably shorter than scape in ♂ ..... **minor**
- 7 (6). Cephalic process longer than scape in ♂, broadened apically; pronotal punctures mostly about as large as interspaces ..... **lateralis**  
 Cephalic process shorter than scape in ♂, not distinctly broadened apically; pronotal punctures mostly larger than interspaces ..... **sacchari**
- 8 (5). Cephalic process generally less than 1/2 as long as scape in both sexes ..... 9  
 Cephalic process generally more than 1/2 as long as scape in both sexes ..... 10
- 9 (8). Pronotum feebly widened basally, largely punctured ..... **linearis**  
 Pronotum distinctly widened basally, with some impunctate areas ... **archontophoenicia**
- 10 (8). Prothorax about as long as broad; body very slender ..... 11  
 Prothorax distinctly broader than long, minutely punctured on central portion ..... **castanea**
- 11(10). Scape twice as long as broad; pronotum with many (over 100) punctures; elytron with punctures mostly narrower than interspaces transversely... **longissima**  
 Scape barely longer than broad; pronotum with few (well under 100) punctures; elytron with punctures mostly larger than interspaces ..... **norfolkensis**

## KEY TO LARVAE

1. Lateral process of abdominal segment 8 distinctly longer than width of arm of caudal process ..... 2  
 Lateral process of abdominal segment 8 not distinctly longer than width of arm of caudal process..... 3
2. Pronotum and base of caudal process largely pigmented; mesothoracic spiracle prominent ..... **eversi**  
 Pronotum and base of caudal process pale; mesothoracic spiracle very short.. **simonthomasi**
3. Arms of caudal process parallel-sided externally, at least before apices ..... 4  
 Arms of caudal process convergent or arched, not parallel externally ..... 5
4. Head convex above, rounded at side; arms of caudal process curved and subevenly tapering distally ..... **longissima**  
 Head flat above, obtuse at side; arms of caudal process somewhat truncate apically by reason of a large blunt external tubercle just before apex ... **archontophoenicia**
5. Arms of caudal process converging; terminal emargination deeper than wide; body entirely pale ..... **calami**  
 Arms of caudal process distinctly arched externally, subtransverse apically; terminal emargination wider than deep; head, pronotum and caudal process pitchy... **sacchari**

**Brontispa serricornis** Gressitt, 1957 (p. 227, f. 5a)

DISTRIBUTION: Papua (Koitaki; BISHOP).

**Brontispa minor** Gressitt, 1957 (p. 222, f. 3a)

DISTRIBUTION: Neth. New Guinea (Hollandia; BISHOP).

**Brontispa longissima** (Gestro), 1885 (p. 224, pl. 15, f. b) Fig. 3, a

Specimens were taken at many localities from Fak Fak, SW Vogelkop, to Efate I. of the New Hebrides, and Noumea, New Caledonia.

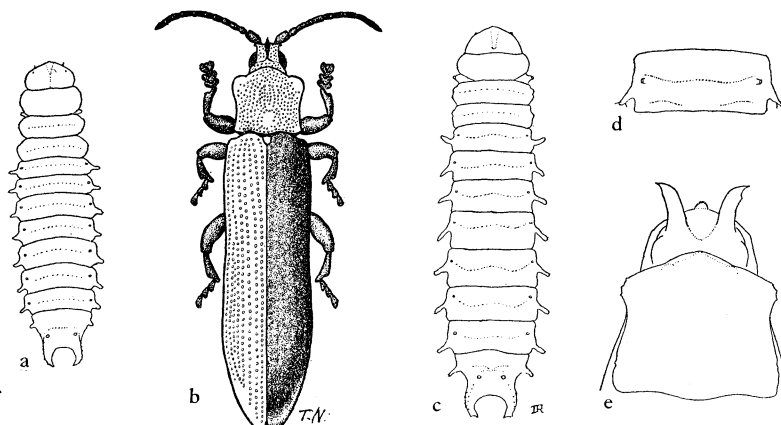


Fig. 3. a, *Brontispa longissima* (Gestro), larva; b, *B. archontophoenicia* n. sp.; c, same, larva; d, same, middle tergite of larva; e, same, head and prothorax of pupa.

**HOSTS:** *Cocos nucifera*, *Areca cathecu*, *Caryota*, *Metroxylon sagu*, *Bentnickiopsis*, *Balaka*, *Calamus*.

**DISTRIBUTION:** Java, Celebes, Moluccas, New Guinea, Cape York (?), Bismarcks, Solomons, New Hebrides, New Caledonia.

**Brontispa castanea** Lea, 1926 (p. 225, f. 3b)

**HOST:** *Kentia* (palm).

**DISTRIBUTION:** Lord Howe I. (SAM).

**Brontispa linearis** Spaeth, 1936

The material referred to this species in 1957 (p. 222) is apparently different, and is described as a new species below.

**DISTRIBUTION:** Neth. New Guinea (N. coast; BM).

**Brontispa archontophoenicia** Gressitt, n. sp. Fig. 3, b-e.

**Female:** Dark pitchy brown to pale ochraceous; head reddish pitchy, much paler beneath; antenna pitchy black, becoming dark reddish basally and distally; prothorax ochraceous, becoming pitchy brown along central portion of disc; scutellum dull brown; elytron dark pitchy brown, almost black on humerus and raised interstices; ventral surfaces pale ochraceous; legs slightly duller ochraceous. Body almost glabrous; frontoclypeus clothed with very fine, suberect golden buff hairs; legs with limited pubescence except on under side of fore tibia and undersides of tarsi.

Head broader than long, transverse and subrectangular in central portion; cephalic process much less than  $1/2$  as long as scape, tapering and acute apically, a deep narrow depression just behind base; deeply and densely punctured above, except near antennal insertion; postocciput finely and somewhat sparsely punctured; frontoclypeus long, parallel-sided, deeply punctured. Antenna reaching slightly beyond humerus, somewhat flattened distally; scape fully as long as segments 2+3, and broader than each; 4-5 similar to 3; 6 barely longer than 5; 7 distinctly longer than 6 or 8; 8-10 increasing very slightly in length; 11 not quite as long as scape. Prothorax slightly broader than long, distinctly concave at side; anterior angle slightly protuberant; anterolateral angle strongly convex and protruding; posterolateral angle prominent and slightly incised, leaving a slightly protuberant secondary angle; disc feebly convex, somewhat deeply impressed with punctures which are subrounded toward side and more ovate near center, the punctures sparser near anterior margin and on postmedian central portion. Scutellum longer than broad, acute behind. Elytron more than  $4\times$  as long as head and prothorax combined, sinuate at side, narrowed behind basal  $1/4$  and widened behind middle; apex subobtusely rounded; disc impressed with rather regular laterally close punctures, the interspaces flattish basally and becoming more distinctly raised posteriorly, with 2nd and 4th interstices carinate apically; sutural puncture-row with 7 or 8 punctures. Ventral surfaces smooth and shiny with only a narrow, lateral strip of dense small punctures on metasternum and a few other minute punctures along sides. Legs very short and stout; hind femur barely reaching posterior margin of 1st abdominal sternite; inner margins of fore femur and fore tibia fairly irregular, the former with a tooth and latter with a pubescent cavity. Length 10.7 mm; breadth 2.15.

*Paratype*: Length 9.7-10.5 mm; breadth 1.9-2.25.

Holotype, ♀ (BISHOP 2918), Bulolo, 720 m, NE New Guinea, 29 Aug. 1956, E. J. Ford, Jr.; 2 ♀ paratypes, same data as holotype; 1 ♀ paratype, Wewak, 5 m, 13 Oct. 1957, Gressitt; 2 near Lake Sentani, June 1959, Gressitt and Maa.

Differs from *B. linearis* Spaeth in having the prothorax much more broadened both apically and basally, instead of being nearly longitudinal at side in basal  $2/3$  and in having a less closely punctured area behind center of pronotal disc.

*Mature larva*: Pale testaceous, nearly colorless on lateral processes and basal and middle portion of tail-fork; head about twice as broad as long, grooved medially and obliquely and narrowly grooved from middle of base toward eye; about 6 widely spaced setae on one side, the setae slightly longer than antenna. Pronotum finely grooved medially and irregularly wrinkled at side. Mesothoracic spiracle about  $4\times$  as large as each of abdominal spiracles. Abdominal segments 1-7 each with a quite slender, apically tapering lateral process bearing 3 or 4 oblique hairs on central portion; segment 8 with a somewhat shorter and slightly stouter process; abdominal tergites each with a long narrow transverse subcentral groove resembling a fold; caudal process with arms fairly stout, not very long, suddenly tapering and acute apically with point directed almost transversely; upper and lower ridges of arm bearing moderately spaced, distinct, short tubercles.

*Pupa*: Head with a strong dorsolateral spine on each side extending well forward of anterior median process, former broadened in middle and then strongly narrowed and acuminate apically, slightly flattened in an oblique sense; anterior median process about



as broad as long, appearing blunt but actually minutely bilobed at apex; prothorax distinctly broadened and somewhat tuberculate anteriorly and posteriorly; disc somewhat transversely wrinkled and with some tubercles slightly behind anterior margin. Wing pads with rows of minute tubercles. Middle abdominal tergites with small and moderate tubercles more or less arranged in 2 transverse rows, most of the larger tubercles in anterior row.

HOST: *Archontophoenix*.

DISTRIBUTION: N New Guinea.

***Brontispa eversi* Gressitt, n. sp.** Fig. 4, a, b.

Shiny pitchy black to pale ochraceous; head black, becoming reddish posteriorly and beneath; cephalic process reddish to pitchy; antenna somewhat shiny, pitchy red, more blackish apically and on segment 2; prothorax shiny orange ochraceous, becoming pitchy black on middle of anterior portion; scutellum pale ochraceous; elytron shiny black, slightly tinged with pitchy and becoming pitchy reddish on posterior portion of external margin and distinctly reddish at extreme apex; ventral surfaces ochraceous anteriorly and largely pitchy brown behind middle of metasternum, but with a small orange patch at side of each abdominal segment; legs ochraceous on fore femur and tibia, largely reddish to pitchy black on remainder. Body largely glabrous, with golden buff hairs on frontoclypeus and along lower borders of eyes; tibiae distally and tarsi beneath with golden buff pubescence.

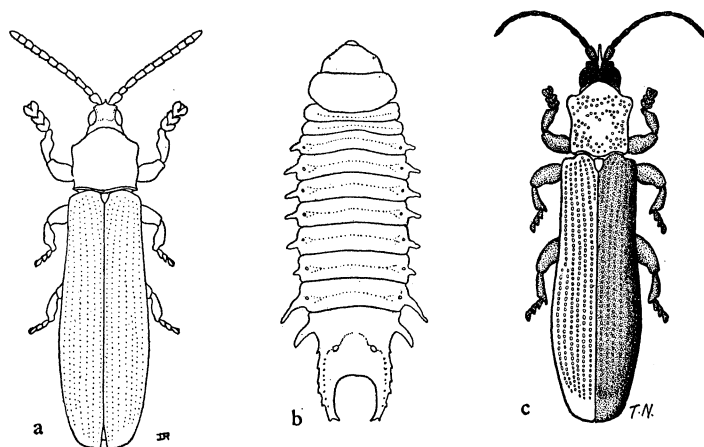


Fig. 4. a, *Brontispa eversi* n. sp.; b, same, larva; c, *B. norfolkensis* n. sp.

Head distinctly longer than broad, tapering from sides of neck to anterior margins of eyes; central portion of upper surface broadened from inner corners of eyes to antero-lateral angles, and upper surface deeply grooved along median line and narrowly grooved parallel to lateral margin and with anterior portion largely impunctate and posterior portion somewhat closely and deeply punctured; postocciput finely and not very closely punctured; cephalic process narrow, subacute,  $\frac{3}{4}$  as long as scape; frontoclypeus extremely narrowed in middle, moderately punctured, but becoming impunctate toward cephalic

process. Antenna reaching well beyond humerus, moderately compressed distally; scape  $1/2$  as long as segment 2, slightly longer than 3, stouter and distinctly punctured; 4 nearly as long as 3, subequal to 5-6; 7 slightly longer, but 8-10 each slightly shorter, subequal to 6; 11 slightly longer than scape, subacute. Prothorax about as broad as long, convex anteriorly and nearly straight at side; anterior angle without tooth, anterolateral angle evenly rounded and hardly protruding; posterolateral angle very slightly protruding and subacute; disc evenly convex, deeply, but not very closely punctured, anterior portion near middle of anterior margin sparsely punctured. Scutellum small, narrowed and subacute apically. Elytron a little more than twice as long as head and prothorax combined, distinctly broadened in posterior  $3/5$ , and thus appearing constricted anterior to middle, broadly and subtruncately rounded apically; disc deeply impressed with fairly large regular punctures, and with alternate interstices distinctly raised and becoming strongly carinate posteriorly. Ventral surfaces in part somewhat frosted and dull and impressed with distinct punctures of different sizes, mainly along sides, and with much finer punctures on central portions except on abdominal sternite 1. Legs short; hind femur barely exceeding abdominal segment 1; inner faces of fore femur and tibia irregular, but former not distinctly toothed. Length 8.2 mm; breadth 2.05.

*Female*: Cephalic process barely  $1/2$  as long as scape; elytron slightly pitchy reddish at base, along external margin, and on ridges of apical declivity. Length 10.4 mm; breadth 2.35.

*Paratypes*: Length 8-10.5 mm; breadth 1.9-2.5.

Holotype, ♂ (BISHOP 2919), Kampong Landbouw, interior SE Biak I., Netherlands New Guinea, 28 May 1959, in slender sedge, Gressitt; allotype, ♀, same data but 21 Oct. 1957, Gressitt. Paratypes same data as holotype or allotype.

Differs from *B. lateralis* Uhmann in having central portion of head more narrowed towards base of eyes and more oblique anteriorly with cephalic process stouter, and with prothorax smoother and less closely punctured, and with elytron less parallel-sided and less truncate apically. Named for Mr. Evers of the Agriculture Dept., Biak, as a token of gratitude for extensive assistance.

*Larva*: Yellowish testaceous, slightly brownish across central portion of pronotum and across basal portion of caudal abdominal segment. Exposed portion of head about twice as broad as long, broadly grooved medially and with some fine oblique grooves between middle and anterior portion of side; 5 or 6 setae on each side, the setae barely as long as antenna; 3 distinct small blackish eyes behind antenna. Pronotum more than twice as broad as long, finely grooved medially and transversely and obliquely wrinkled at side; pigmented area finely reticulate. Mesothoracic spiracle about  $3\times$  as large as each abdominal spiracle. Abdominal segments with somewhat gradually enlarging lateral processes, 1-4 only slightly longer than broad, 5 nearly twice as long as broad, and last nearly  $4\times$  as long as broad and appearing to consist of 4 segments. Abdominal tergites each with a deep transverse crease and with surfaces somewhat evenly microgranulose. Caudal fork moderately long, incised for fully  $2/5$  its length, curved obliquely inward at apex and acute; dorsal and lateral ridges armed with somewhat widely spaced moderate tubercles, most of which bear setae.

HOST: Sedge.

DISTRIBUTION: Biak I.

**Brontispa norfolkensis** Gressitt, n. sp.      Fig. 4, c.

*Male*: Pale chestnut brown, slightly ochraceous on under surfaces and slightly paler on legs. Body largely glabrous except for a few short pale erect hairs on frontoclypeus and golden pubescence on tibiae and tarsi.

Head longer than broad, parallel-sided posteriorly and also in central portion, which is subsquare and only slightly protruding at anterolateral angles and with its dorsal surface medially grooved anteriorly and in large part rather closely punctured; cephalic process slightly longer than scape, extremely slender, subacute and curved slightly upward distally; postocciput smooth and somewhat sparsely punctured; frontoclypeus fairly broad, finely punctured and with a large concavity on each side toward base of cephalic process, which latter is rather smooth. Antenna reaching to end of basal 1/4 of elytron, moderately slender; scape stout, swollen anteriorly, distinctly longer than segment 2; segments 2-6 subequal, each slightly thickened distally; 7 slightly longer and stouter, 8-11 distinctly pubescent; 8-10 subequal, each shorter than 7; 11 nearly as long as 1. Prothorax barely longer than broad, moderately convex anteriorly and subparallel at sides except that anterolateral angle is strongly rounded and protuberant, being much broader than prothorax at base; posterolateral angle slightly incised forming 2 somewhat feeble small angles; disc feebly convex, finely and irregularly punctured, the punctures mostly nearer side and between middle and apex toward side, leaving extreme anterior portion, and much of central portion extending toward anterolateral angle, largely impunctate but with very minute sparse punctures. Scutellum pentagonal, longer than broad, not very acute. Elytron 2.5 × as long as head and prothorax combined, subparallel-sided but distinctly narrowed at end of basal 2/5 and widened behind middle; apex somewhat obtusely rounded, and nearly truncate near sutural angle; disc impressed with fairly deep, moderate punctures, interstices fairly narrow and alternate ones becoming carinate posteriorly, particularly 2nd and 4th on apical declivity. Ventral surfaces largely smooth, with 1-2 rows of punctures at side of metasternum, and some irregular partly punctate depressions at side of abdominal segments; smooth areas on abdominal sternites with extremely minute punctures. Legs moderately stout; hind femur slightly exceeding abdominal segment 1; fore tibia distinctly sinuate and emarginate preapically on inner side. Length 6.9 mm; breadth 1.15.

*Paratypes*: Length 6.6-7.5 mm; breadth 1.1-1.2.

Holotype, ♂ (Bishop 2920), Mt. Bates, 270 to 300 m, Norfolk I. 25 February 1958, Miss Z. Liepa; 3 paratypes, same data.

Differs from *B. limbata* Waterhouse in having the antennal process much longer and more slender, the prothorax more parallel-sided and much more protuberant anterolaterally, and with the elytron more elongate and more heavily punctured.

DISTRIBUTION: Norfolk I.

**Brontispa calami** Gressitt, n. sp.      Fig. 5, a-c.

*Male*: Reddish ochraceous to pitchy black; head reddish brown; antenna pitchy reddish, becoming duller on parts of apical segments and apices of middle segments; prothorax reddish ochraceous brown; scutellum reddish ochraceous; elytron pitchy black, reddish ochraceous on basal portion of suture, extreme base of disc, posterior portion of ex-

ternal margin, and most of apical declivity; ventral surfaces reddish brown, ochraceous anterior to premedian portion of metasternum; legs orange ochraceous.

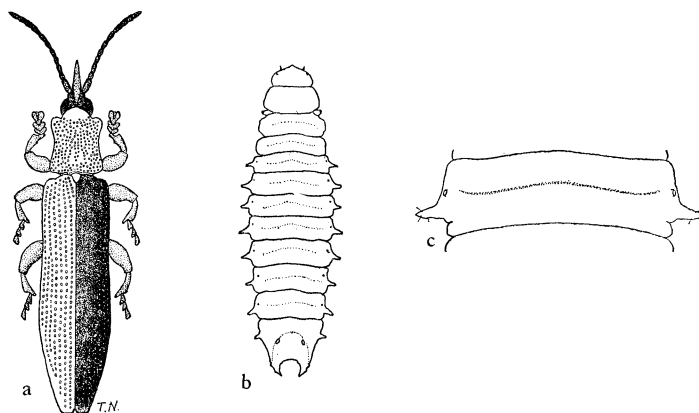


Fig. 5. a, *Brontispa calami* n. sp.; b, same, larva; c, same, middle abdominal tergite.

Head much longer than broad, central portion nearly square, slightly broader than long, narrowly grooved medially and also parallel to side, intervening surface with irregular, fairly close punctures; cephalic process very large, longer than central portion of head and reaching to about middle of antennal segment 3, somewhat gradually tapering and flattened apically, with upper surface moderately depressed, slightly raised beyond middle; frontoclypeus parallel-sided, feebly punctured; under surface of process smooth. Antenna barely longer than head and prothorax combined; scape fully as long as next 2 segments combined; segment 3 slightly longer than 4, subequal to 5 and 6; 7 distinctly longer than 6, slightly longer than 8; 8-10 subequal; 11 nearly as long as 7; terminal segments pubescent but with a medial glabrous stripe above and beneath. Prothorax barely longer than broad, slightly broader at base than near apex, lateral margin strongly sinuate, narrowest slightly behind anterolateral angle which is protuberant both laterally and anteriorly and somewhat evenly rounded; widest somewhat anterior to posterolateral angle which is feebly protuberant; anterior margin somewhat evenly convex, disc feebly convex, rather heavily punctured, the punctures mostly longer than broad on central portion, with some limited impunctate areas on median portion just behind center and narrowly and obliquely forward toward anterolateral angle. Scutellum about as broad as long, subrounded behind. Elytron  $2.25 \times$  as long as head and prothorax combined, subparallel but distinctly narrowed in 2nd  $1/4$ , widest somewhat behind middle; apex obtusely rounded and emarginate-truncate between angle and suture; disc impressed with rather close regular punctures, alternate interstices slightly raised, particularly near apex, only 1st ridge reaching apical margin, which it meets at apical angle. Ventral surfaces rather smooth, largely impunctate except for a few punctures along side of metasternum and some very minute ones on abdomen, mostly at sides of basal segments and on last sternite. Legs very short; hind femur barely reaching apex of abdominal sternite 1; fore femur arched and flattened and fore tibia strongly incised. Length 7.5 mm; breadth 1.45.

Holotype, ♂ (BISHOP 2921) Ego, 10 m, Rendova I., New Georgia group, Solomon Is., 16 July 1959, on broad-leafed rattan, Gressitt; Paratypes and larvae, same data.

Differs from most Papuan species, such as *B. longissima*, in having the interantennal process very much larger, and longer than central portion of head. Further differs from *longissima* and most other species in having the prothorax broadest a short distance anterior to base.

*Larva*: Creamy testaceous, slightly duller on caudal fork. Head fully twice as broad as long, distinctly grooved in central portion, with an oblique, narrow groove from end of median groove to between eyes and antenna, and some irregularities within triangle formed by longitudinal and oblique grooves; 5 eyes on one side, 4 of them forming a vertical line. Pronotum somewhat evenly convex, without very distinct pigmented areas, with a feeble, incomplete median groove and irregular wrinkles and impressed areas somewhat radiating around middle of each 1/2. Mesothoracic spiracle about 3 × as large as others. Lateral processes of abdomen rather small, slender, 2-3 × as long as broad and somewhat suddenly tapering and subacute apically; process on segment 8 hardly larger than that on segment 1. Tergites of abdominal segments rather finely reticulate, each crossed by a transverse groove which is followed in central portion by posteriorly open transverse elliptical area. Caudal fork rather narrow, parallel-sided, curved inward and somewhat hooked apically with the emargination between arms rather small and nearly round; dorsal and lateral ridges of arm with a number of minute setose tubercles which are slightly irregularly arranged.

HOST: *Calamus* sp.

DISTRIBUTION: Solomon Is. (New Georgia).

**Brontispa simonthomasi** Gressitt, n. sp. Fig. 6, a, b.

*Male*: Pale orange ochraceous to pitchy black; head dull reddish, pitchy on central portion of dorsal surface and anterior part of postocciput, paler ochraceous on postgenae and parts of frontoclypeus; antenna reddish, becoming pitchy on distal segments and apices and parts of sides of middle segments; prothorax pale orange ochraceous, pitchy at middle of extreme apex; scutellum ochraceous; elytron pitchy black, with a broad basal pale ochraceous stripe occupying most of extreme basal portion and gradually narrowing to width of 2 puncture-rows (3-4) and disappearing at middle of elytron. Ventral surfaces pale orange ochraceous; legs ochraceous reddish at knees and reddish brown on tarsi. Body nearly glabrous, with fairly long, fine golden hairs on frontoclypeus; inner portions of fore tibia and undersides of tarsi pubescent.

Head slightly longer than broad, very broad basally and almost evenly tapered to anterior borders of eyes; central portion broadened from base of eyes to anterolateral angles which are fairly prominent, surface above deeply grooved medially and with several lateral or sublateral fine or incomplete grooves partly interspersed with punctures; postocciput with large, widely spaced punctures; cephalic process just over 1/2 as long as scape, fairly narrow, somewhat blunt apically and fairly thin on upper margin, flattened on lower margin; frontoclypeus strongly raised, deeply constricted at middle and somewhat finely and unevenly punctured. Antenna nearly 1/2 as long as body, moderately compressed distally; scape subcylindrical, slightly thickened apically; 2nd segment 2/3 as large as scape, subequal to each of 4-6; 3 longer than these; 7 slightly shorter than 3; 8 slight-

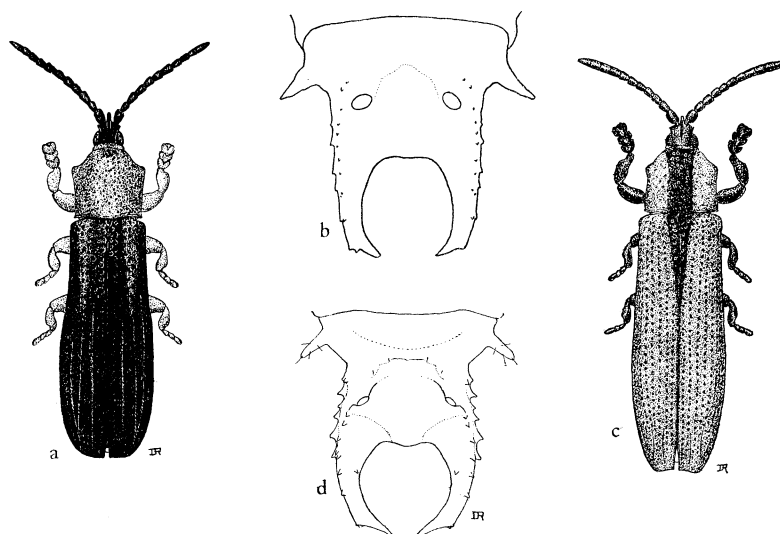


Fig. 6. a, *Brontispa simonthomasi* n. sp.; b, same, caudal end of larva; c, *B. sacchari* n. sp.; d, same, caudal end of larva.

ly shorter than 6, subequal to 9, 10; 11 hardly longer than scape. Prothorax barely broader than long, subrectangular, with sides straight but slightly broadening toward anterolateral angle, which is subevenly rounded and barely protruding; anterior margin evenly convex, notched and toothed at side; posterolateral angle fairly square, slightly tuberculate; basal margin strongly convex at middle; disc distinctly and evenly convex, impressed with large, deep punctures which are moderately spaced with a few small impunctate spaces just behind middle or toward anterolateral angles. Scutellum slightly longer than broad, subparallel and obtuse apically. Elytron  $2.3 \times$  as long as head and prothorax combined, subparallel in anterior  $1/3$ , distinctly broadened behind middle, broadly rounded-truncate apically; disc with 8 rows of large regular punctures before middle and a sutural row of 4 or 5 punctures, and 10 rows behind middle; alternate interstices more strongly raised, particularly posteriorly, with 2 of ridges strongly carinate on posterior declivity; lateral margins not distinctly flattened but declivitous. Ventral surfaces largely smooth and shiny with minute punctures, but with dense heavy punctures at sides of metasternum and abdominal sternites; sternites 2-5 with depressed impunctate areas. Legs moderately stout; hind femur slightly exceeding abdominal segment 1; fore tibia moderately incised preapically. Length 7.9 mm; breadth 1.9.

Holotype, ♂ (BISHOP 2922), slopes above Hollandia-Binnen, 100-300 m, 1 November 1958, on a small sedge (3231), Gressitt; several paratypes and immature stages, same data.

This species is moderately deep-bodied for a *Brontispa* and resembles *Plesispa* to a slight degree in body form, but from the prothoracic structure probably belongs to *Brontispa*. Named for R. T. Simon Thomas, entomologist at Hollandia, as a token of gratitude for extensive kindness.

*Larva*: Pale orange, somewhat broadened in central portion; head grooved medially

and finely striate obliquely towards antenna, otherwise minutely punctured; 3 distinct black eye-spots and 2 less distinct brown ones; pronotum rather even, with some vague depressions at each side and finely reticulate; abdominal tergites without callosities; lateral processes fairly small, lacking on thorax, last few larger; caudal process subparallel-sided, feebly arched with arm moderately tuberculate above and below, a blunt tubercle before apical tooth which is directed obliquely backward and slightly upward; emargination slightly deeper than wide, rounded-truncate basally.

HOST: Sedge.

DISTRIBUTION: Neth. New Guinea (Hollandia).

**Brontispa lateralis** Uhmann, 1953

The material I recorded as this species in 1957 (p. 225, fig. 4a-d), proves to be a new species, described below, except possibly for one specimen, the last listed, from Sepalakambang, 1920 m, Salawaket Range, Huon Pen., 12 Sept. 1956, Ford. This specimen, however may be different from both species.

HOST: *Saccharum officinarum*.

DISTRIBUTION: NE New Guinea (Zenab; BM).

**Brontispa sacchari** Gressitt, n. sp. Fig. 6, c, d.

*Brontispa lateralis*, Gressitt (*nec* Uhmann), 1957, p. 225, fig. 4, a-d.

*Male*: Pale reddish brown, pitchy blackish along median line of pronotum and continuing across scutellum and along elytral suture nearly to apex; antenna, head and most of ventral surfaces blackish to pitchy reddish; legs pitchy black, more reddish on tibiae. Body largely glabrous, with fine suberect pale hairs on frontoclypeus, some reddish hairs on tibiae and golden buff pubescence on undersides of tarsi.

Head longer than broad, interantennal process slightly longer than scape, parallel-sided, evenly rounded apically, slightly concave above; central portion of head widened anterior to eyes and somewhat angulate, deeply grooved in middle, most deeply so just behind base of cephalic process, moderately grooved near side; postocciput very sparsely punctured; frontoclypeus narrow and finely punctured, under surface of cephalic process smooth. Antenna not quite  $1/2$  as long as body, slender in central portion; scape subcylindrical; segment 2 about  $2/3$  as long as 1 and  $2/3$  as wide as 1; 3 not quite as long as 1; 4-6 subequal, each barely longer than 2; 7 as long as 3, but broader distally; 8-10 each about as long as 7 and more parallel-sided; 11 barely longer than scape. Prothorax slightly broader than long, feebly sinuate at side and slightly constricted between anterior corner and middle; anterior angle slightly protuberant; anterolateral angle subevenly rounded; posterolateral angle nearly square, but slightly protruding; disc rather evenly convex, deeply impressed with fairly close rounded or longitudinally oval punctures. Scutellum slightly longer than broad, subangulate behind. Elytron a little more than twice as long as head and prothorax combined, nearly parallel-sided, but slightly sinuate and widest well behind middle; rounded-truncate apically; disc with regular rows fairly large punctures, sutural row with 7 punctures on one side and 5 on the other; alternate interstices slightly more raised, 2 and 4 quite distinct at apical declivity. Ventral surfaces deeply punctured on sides on metathorax, moderately punctured on sides of abdominal sternites, minutely

punctured on central portions of sternites including metasternum. Legs very short and stout. Length 7 mm; breadth 1.65.

*Female*: Cephalic process about 2/3 as long as scape, subacute and subevenly tapering from base to apex, wider on lower margin. Length 8.2 mm; breadth 2.

*Paratypes*: Varying in color from slightly paler than holotype to almost entirely black. Length 6.8–9 mm; breadth 1.8–2.15.

Holotype, ♂ (BISHOP 2923), Swart Valley, 1500 m, 5 Oct. 1958, Gressitt; many paratypes in small sedges and grasses; numerous paratypes from Itouda, 1550 m, Kamo Valley, Wisselmeren, 13 Aug. 1955, in *Eulalia*, Gressitt; Kamo-Debei Divide, 1650 m, near Itouda, 14 Aug.; Urapura (Ugapuga), Kamo Valley; Okaitadi, 1785 m, Paniai Iake, 8 Aug. 1955, Gressitt, some Simon Thomas and Gressitt.

Differs from *lateralis* Uhmann with which it was originally confused, in being larger, with elytral apices more rounded, more projecting posteriorly and not truncate, and having prothorax with a forward projecting tooth at side of anterior end, with anterolateral angle more suddenly convex, pronotal disc more narrowly striped medially, antenna longer, and elytron more widened behind middle, more deeply punctured and more sharply ridged.

*Larva*: The larva was described in the above reference.

HOST: *Saccharum* spp., *Eulalia* sp., small sedges.

DISTRIBUTION: WC New Guinea.

#### Genus *Caledonispia* Uhmann, 1952

*Caledonispia sarasini* (Heller), 1916 (p. 228, f. 5b)

DISTRIBUTION: New Caledonia (DRESDEN).

#### Genus *Plesispia* Chapuis, 1875

##### KEY TO ADULTS

1. Prothorax more or less parallel-sided, not considering anterolateral angle ..... 2  
    Prothorax narrowed anteriorly before anterolateral angle ..... 3
2. Pronotal punctures mostly larger than interspaces; elytron somewhat obtuse ecto-  
    apically ..... **reichei**  
    Pronotal punctures mostly smaller than interspaces; elytron broadly rounded ecto-  
    apically..... **saccharivora**
3. Pronotum largely pale; cephalic process shorter than scape..... 4  
    Pronotum dark, very closely punctured, punctures extending almost to apex; legs  
    very pale; body rather flat ..... **palmarum**
4. Prothorax densely punctured, with a distinct tooth at side of anterior margin; ely-  
    tron not very shiny, and with alternate interstices more raised ..... **hagenensis**  
    Prothorax densely punctured, with a distinct tooth at side of anterior margin;  
    elytron shiny, with interstices subequally raised ..... **montana**



## KEY TO LARVAE

1. Lateral processes mostly fairly long, several times as long as broad; emargination of caudal process nearly transversely oval..... 2  
Lateral processes all short, not much longer than broad; emargination of caudal process nearly round; most of processes dark ..... **montana**
2. Lateral processes pale, very slender distally; mesothoracic process much longer than mesothoracic spiracle; caudal process largely pale ..... 3  
Lateral processes largely dark, not very slender distally; mesothoracic process only slightly longer than mesothoracic spiracle; caudal process dark, with apical spines directed transversely, their tips rather close ..... **saccharivora**
3. Caudal process with arms incurved apically, and with inner apical spines nearly transverse, not very distant at apices..... **reichei**  
Caudal process with arms fairly straight externally, and with inner apical spines oblique, distant at apices ..... **palmarum**

**Plesispa reichei** Chapuis, 1875 (p. 229, f. 6, a, c)

What is probably this species has now been collected at many localities in New Guinea, besides those previously listed, which included New Britain and Cape York Peninsula. They have been found on many hosts, but most commonly on rattans or certain other palms. Some were found on coconut palm at Aroa, Papua.

HOSTS: *Cocos*, *Areca*, *Metroxylon*, *Calamus*, *Korthalsia*, *Archontophoenix*, *Flagellaria*.

DISTRIBUTION: Malaya, Indonesia, Philippines, New Guinea, New Britain, Cape York Peninsula.

**Plesispa hagenensis** Gressitt, n. sp.      Fig. 7, a.

*Male*: Pale ochraceous to pitchy black: head black, tinged with reddish anteriorly and pitchy reddish posteriorly and beneath; antenna black, tinged with pitchy red basally and with reddish brown on distal pubescent portion; prothorax pale orange ochraceous, slightly reddish apically; scutellum pitchy; elytron pitchy black, reddish at extreme base; ventral surfaces pale ochraceous anteriorly, brownish posteriorly, and ochraceous at sides of abdominal segments 2-4; legs pale ochraceous, pitchy on middle of hind tarsus, outer 1/2 of fore tarsus and on parts of tibiae and hind femur. Body with only a few hairs on frontoclypeus besides pubescence on tibiae and tarsi.

Head slightly longer than broad, tapering anteriorly to eye; central portion rectangular, slightly expanded at anterolateral angle, deeply grooved medially, irregularly depressed near side and rugose or punctured on remainder; cephalic process fairly narrow, 3/4 as long as scape, blunt apically, finely grooved medially above and broader and smooth beneath; postocciput constricted anteriorly above and moderately punctured; frontoclypeus constricted in middle, grooved at side, with central portion feebly punctured and about as broad as middle of underside of cephalic process. Antenna 1/3 as long as body, moderately flattened distally and striate on segments 3-10, punctured on 1 and 2; 1 nearly twice as long as broad; 2 slightly shorter but more slender, slightly longer than 3; 4 slightly shorter than 3, nearly as long as 5; 6=4; 7 as long as 2; 8-10 equal, each about

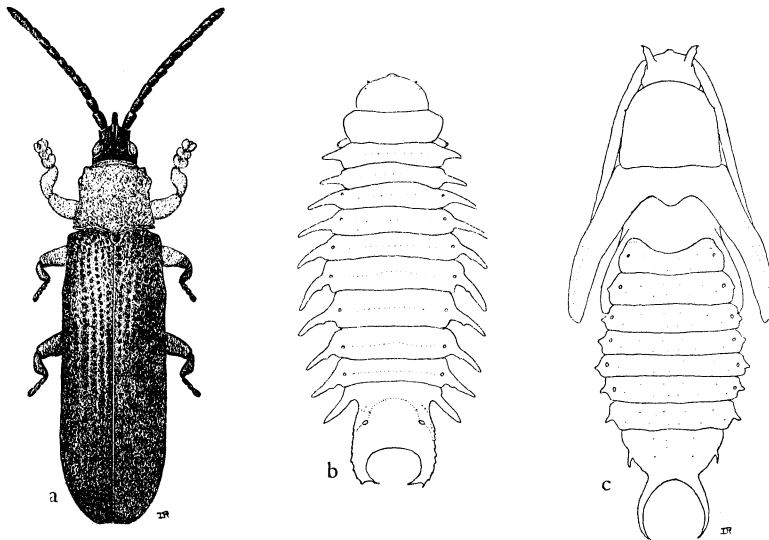


Fig. 7. a, *Plesispa hagenensis* n. sp.; b, *P. saccharivora* Gressitt, larva; c, same, pupa.

as long as 5; 11 as long as 1. Prothorax about as long as broad, distinctly narrowed anteriorly, convex on anterior margin with a strong tooth at anterior angle, then oblique to anterolateral angle which is obtuse, but distinctly protuberant; side oblique and slightly emarginate to posterolateral angle which consists of 2 teeth separated by a moderately deep emargination, hind tooth more slender; disc subevenly convex, impressed with very deep punctures which are dense on central portion and become sparse only near apex. Scutellum barely longer than broad, rounded at side and subacute apically. Elytron 2.4× as long as head and prothorax combined, slightly broadened at end of basal 1/5 then slightly constricted and widest behind middle; lateral margin moderately expanded, declivitous but becoming flatter towards the rounded apex; disc with regular, moderately large, flat bottomed punctures which become a little smaller towards apex; 5 punctures in sutural row; interstices slightly raised throughout, alternate ones subcarinate from end of basal 1/4, distinctly carinate posteriorly, 2 of them nearly reaching apical margin. Ventral surfaces moderately smooth and minutely punctured along middle with heavy punctures at side of metasternum and some irregularities at inner edges of pale portions of abdominal sternites. Legs rather small; hind femur slightly exceeding abdominal segment 1; fore femur with a small tubercle. Length 6.75 mm; breadth 1.65.

Holotype, ♂ (BISHOP 2924), Goiburung, 1600 m, E of Kornfarm, near Mt. Hagen, 16 Oct. 1958, pinnate palm #3186, Gressitt.

Differs from *reichei* in being smaller, less shiny, with central portion of head narrower, cephalic process longer, prothorax more narrowed anteriorly and with anterior angles more dentate and posterolateral angle bidentate, as well as having the elytron more finely punctured and more carinate.

HOST: *Heterospathe*?

DISTRIBUTION: NE New Guinea.

**Plesispa saccharivora** Gressitt, 1957 (p. 230, f. 6, a, b)      Fig. 7, b, c.

What appears to be this species has been taken in moderate numbers in sugar cane behind Kotanika, 75 m, near Lake Sentani, 17 Oct. 1957, and Ifar, 250 m, Cyclops Mts., 4 Oct. 1958, Gressitt, and Tor, Sarmi, 24 July 1959, Maa.

*Larva*: Very pale, with mandible and 6 eye-spots black; head broadly grooved medially, with irregular oblique callosities, and otherwise finely granulose; pronotum with irregular central and subbasal transverse depressions and largely granulose; middle abdominal tergites each deeply grooved across middle and granulose; lateral processes subequal, shorter on thorax and abdominal segment 8, mostly about 3× as long as breadth at base, finely tuberculate and setose; caudal process a little broader than long, slightly arcuate at sides, slightly narrowed at apex; arm with several fine sharp teeth above and below and apex with an obtuse outer tubercle and long acute inner one pointing almost transversely and slightly upward; emargination distinctly broader than long, even.

*Pupa*: Head with median cephalic process as long as broad, bilobed apically, and with supraocular process long, widened in middle and flattened, with apex slender, acuminate and curved outward; pronotum transversely ridged on center, with a row of small tubercles behind anterior margin; middle abdominal tergites with 4 widely spaced tubercles anteriorly and 4 closer ones behind, on central portion; lateral processes short, blunt and strongly tuberculate basally; caudal process long, with arm slender, evenly tapering and arcuate, and emargination deep and even.

HOST: *Saccharum* spp.

DISTRIBUTION: C New Guinea.

**Plesispa montana** Gressitt, n. sp.      Fig. 8.

Male: Shiny, black to orange ochraceous: head black, slightly reddish anteriorly and beneath; antenna black with reddish tinge; prothorax orange ochraceous becoming pitchy at central portion of anterior margin; scutellum pitchy; elytron black, slightly pitchy reddish apically; ventral surfaces ochraceous anteriorly and along median line of metasternum to base of abdominal segment 1, pitchy on remainder, but slightly reddish at sides of abdominal segments 1 and 4, and base of 5; legs ochraceous, pitchy on most of tarsi, hind tibia and outer portion of middle tibia. Body glabrous except for erect hairs on frontoclypeus and pubescence of tibiae and tarsi.

Head about as broad as long; central portion squarish but slightly broader anteriorly, grooved medially and near side with remainder swollen and largely rugose; cephalic process 1/2 as long as scape, subparallel above, broad at base and tapering beneath, blunt apically; postocciput constricted anteriorly, somewhat closely punctured; frontoclypeus fairly broad, somewhat flattened and moderately punctured between eyes, depressed in lateral view opposite anterior end of eye. Antenna less than 1/2 as long as body, moderately stout, somewhat compressed apically; scape rather stout, subcylindrical in central portion, narrowed basally and apically; 2nd segment 3/4 as long as 1, subequal in length to 3-4; 5 and 6 slightly shorter; 7 barely longer than 2 but compressed; 8-10 each about as long as 5, nearly as broad as long; 11 nearly as long as 1, blunt apically; 7-11 pubescent on margins. Prothorax broader than long, strongly convex on anterior margin, barely toothed at side, oblique to anterolateral angle which is obtuse and distinctly protuberant; side

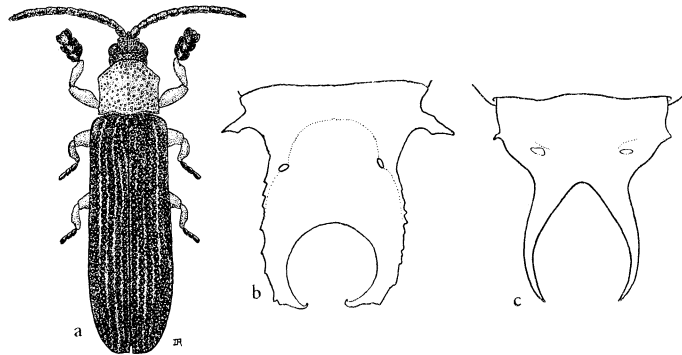


Fig. 8. a, *Plesispa montana* n. sp.; b, same, caudal end of larva; c, same, caudal end of pupa.

straight, slightly widened toward basal angle which is moderately protuberant and narrowly emarginate just before a small tubercle at angle; disc subevenly convex, deeply but irregularly impressed with moderately small punctures, which partly form a median longitudinal line and denser laterally leaving several impunctate areas at apex and at side of middle. Scutellum longer than broad, widest in middle, obtuse apically. Elytron 2.4× as long as head and prothorax combined, subparallel in basal 1/2, very feebly widened behind middle, rounded-truncate apically; disc impressed with fairly strong punctures in 8 rows before middle and in 10 rows for a short distance behind middle, sutural row with 4–5 punctures; alternate interstices slightly raised on central portion, slightly carinate apically, none reaching apical margin, which is somewhat smooth and declivitous. Ventral surfaces smooth and minutely punctured along middle with heavy punctures at sides except on central portions of pale areas of abdomen. Legs somewhat flattened; hind femur nearly reaching middle of abdominal segment 2; fore femur stouter and with a distinct subbasal tooth. Length 8.9 mm; breadth 1.95.

Holotype, ♂ (BISHOP 2925), Swart Valley, 1500 m, 8 Nov. 1958, on sugar cane, Gressitt; many paratypes and immature stages, same data.

Differs from *saccharivora* in being larger, darker, more shiny, with cephalic process shorter, with prothorax more convex, less closely punctured and more narrowed anteriorly and with elytron less strongly carinate.

*Biology*: Larvae and adults feed on the bases of leaves of sugar cane, within the crown. Eggs and pupae are found in the same situation.

*Larva*: Whitish with caudal process pitchy, and head, pronotum and lateral processes slightly pigmented. Head with a deep median groove which broadens anteriorly, and with finer oblique grooves and ridges toward antenna and remainder granulose; pronotum granulose with fine median groove and some wrinkles and depressions near side; middle abdominal tergites each granulose with only a transverse groove on middle; lateral processes moderately stout but partly subacute, shorter on thorax and longest preapically, somewhat tuberculate; caudal process distinctly longer than broad, slightly arched at side, about as broad at apex as at base, with arm moderately tuberculate above and below with a short inferior tubercle ectoapically at end and with a long tooth internally curving in-

ward and then upward and slender distally; emargination even, nearly round.

*Pupa*: Head with median process fully as long as broad, subcylindrical, slightly bilobed apically, and supraocular process long, curved downward, broadened and flattened in middle, acuminate apically; pronotum transversely ridged along middle, with several widely spaced fine tubercles along side and near anterior margin; middle abdominal tergites with 8 subequally spaced tubercles on central portion, the posterior ones closer; lateral processes almost obsolete; caudal process long and narrow, not widely divergent, subangularly emarginate nearly to base; arm arcuate, very narrow beyond middle.

HOST: *Saccharum officinarum*.

DISTRIBUTION: C New Guinea.

***Plesispa palmarum* Gressitt, n. sp. Fig. 9.**

*Male*: Black to pale testaceous: head pitchy black, reddish brown on cephalic process, genae and mouthparts, pitchy reddish on postocciput; antenna pitchy black, slightly tinged with brownish basally; prothorax pitchy black, tinged with dark brown particularly towards side; scutellum pitchy black; elytron pitchy black, becoming tinged with dull brown towards apex, paler on posterolateral and apical margins; ventral surfaces dirty brown, nearly testaceous on anterior thoracic sternite, and pale testaceous on parts of sides of abdominal segments; legs testaceous, duller on tarsi and hind tibia. Body nearly glabrous with few pale hairs on basal portion of frontoclypeus; very little pubescence on legs except for tarsal pads.

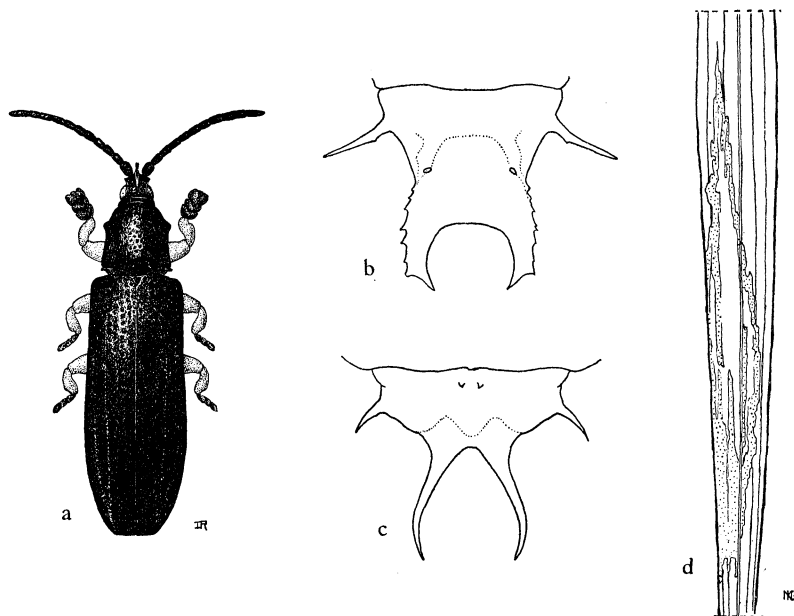


Fig. 9. a, *Plesispa palmarum* n. sp.; b, same, caudal end of larva; c, same, caudal end of pupa; d, same, old feeding of larvae.

Head slightly longer than broad; central portion subrectangular but broadened anteri-

only and subacutely angulate anterolaterally, finely grooved medially on each side, with remainder irregular with a few deep punctures; cephalic process nearly reaching apex of scape, slender, parallel-sided, blunt and slightly emarginate apically; postocciput constricted anteriorly, with large deep punctures; frontoclypeus strongly constricted, grooved on each side of middle, portion between grooves narrower at middle than the flat under-surface of cephalic process. Antenna nearly  $1/2$  as long as body, moderately compressed beyond middle; scape stout, cylindrical; segment 2 slightly smaller than scape; 3 nearly as large as 2, barely longer than 4; 5 subequal to 3 and 6; 7 slightly longer, broader; 8 barely larger than 6, subequal to 9, 10; 11 as long as scape; 7-11 pubescent near margins, and on apex of 11. Prothorax about as long as broad, narrowed anteriorly, convex on anterior margin, which ends with a distinct angle; side oblique to anterolateral angle which is obtuse and distinctly protuberant; sides straight but oblique between anterolateral angle and basal angle, which is dentate behind a slight emargination; disc moderately convex, somewhat uneven, densely impressed with deep subrounded punctures. Scutellum longer than broad, angulate apically. Elytron  $2.2 \times$  as long as head and prothorax combined, subparallel in basal  $1/3$ , distinctly broadened behind middle, evenly rounded-truncate apically; disc with large, regular, flat-bottomed punctures in 8 rows before middle and 10 behind middle, with 5 punctures in sutural row; alternate interstices distinctly raised from near base, carinate apically, 2 of them reaching apical margin. Ventral surfaces smooth and minutely punctured along median portion, with large punctures on lateral portions. Legs not very stout; hind femur slightly exceeding abdominal segment 1; fore tibia moderately emarginate opposite a small tubercle on femur. Length 6.7 mm; breadth 1.75.

Holotype, ♂ (BISHOP 2926), Swart Valley, 1400 m, 17 Nov. 1958, on slender pinnate palm (#3277), Gressitt; 5 paratypes and immature stages, same data.

Differs from *P. reichei* in being more slender, flatter, with prothorax much more heavily punctured, less convex and more narrowed anteriorly and with cephalic process longer.

*Biology*: All stages are found in unfolding leaflets of palms with slender pinnae in shady forest. The larvae may eat completely through basal portions of leaflets.

*Larva*: Pale yellowish, slightly greenish on caudal process. Head deeply grooved medially, granulose and slightly irregular above at side; 5 pigmented eye-spots, 1 much larger; pronotum granulose, finely grooved medially, slightly uneven near side; middle abdominal tergites minutely granulose, creased across middle; lateral processes long and slender, slightly shorter on thorax and abdominal segment 8; others  $1/3$  as long as width of body; caudal process stout, slightly broadened distally, with arm broad, bearing fairly long tubercles above and below, and apex with a blunt tubercle externally and an obliquely incurved and raised sharp curved spine internally; emargination broader than deep, rounded-truncate in middle.

*Pupa*: Pale. Head with median process about as long as broad, narrowed and bilobed apically, and supraocular process long, strongly raised, irregularly thickened in middle and slender, acuminate and outcurved apically; pronotum transversely ridged on middle and with scattered fine tubercles along lateral margin and on anterior  $1/2$  of disc; middle abdominal tergites each with 4 evenly spaced tubercles before and 4 closer ones behind; lateral processes prominent, longer than broad, slightly tuberculate and setose; caudal process small, consisting of 2 independent slender arched arms, which are most widely separated preapically.

HOST: Palm with slender pinnae, possibly *Rhopaloblaste*.

DISTRIBUTION: C New Guinea.

Genus *Ceratispa* Gestro, 1895

KEY TO ADULTS

1. Dorsum largely or entirely black or metallic ..... 2  
Dorsum largely brown or reddish; at least pronotum largely pale..... 6
- 2 (1). Body more than 3× as long as broad; pronotum sometimes pitted or pale at side ..... 3  
Body less than 3× as long as broad; pronotum entirely dark..... 4
- 3 (2). Body very narrow; pronotum pale at side; cephalic process widest near apex ..... **calami**  
Body moderately narrow; pronotum not pale at side, rarely pitted; cephalic process of ♂ widest in middle ..... **brandti**
- 4 (2). Slightly metallic, greenish black; pronotum densely punctured in center..... 5  
Highly metallic, greenish blue; pronotum sparsely punctured in center; cephalic process at apex nearly as broad as scape ..... **metallica**
- 5 (4). Prothorax feebly narrowed anteriorly; elytral interstices equally raised except posteriorly ..... **atra**  
Prothorax distinctly narrowed anteriorly to anterolateral angles; alternate elytral interstices more strongly raised throughout ..... **legalis**
- 6 (1). Elytron with alternate interstices very broad and differently colored; pronotum generally with a median dark stripe ..... 7  
Elytron with interstices subequally raised; pronotum not striped ..... 9
- 7 (6). Pronotum striped medially ..... 8  
Pronotum not striped medially; cephalic process slightly narrowed apically; elytral apex obliquely emarginate, chestnut brown ..... **loriae**
- 8 (7). Cephalic process blunt apically ..... **biroi**  
Cephalic process acute apically ..... **spiniceps**
- 9 (6). Cephalic process fairly broad, often flattened horizontally..... 10  
Cephalic process narrow, laterally compressed; length 9 mm..... **buergersi**
- 10 (9). Elytron largely dark, not reddish on basal 1/4 or more..... 11  
Elytron reddish on basal 1/4 or more, dark apically ..... 13
- 11 (10). Eye occupying more than 1/2 central portion of head; process rounded apically; body extremely narrow..... 12  
Eye occupying less than 1/2 central portion of head; process parallel-sided and subtruncate apically; body not extremely narrow..... **pinangae**
- 12 (11). Cephalic process widened apically, broadly rounded at apex, narrowly concave medially; elytron truncate apically ..... **meijerei**  
Cephalic process subparallel-sided, narrowly rounded at apex, broadly concave medially; elytron emarginate apically ..... **palmivora**
- 13 (10). Cephalic process broad in ♂, distinctly tapered or parallel-sided in ♀..... 14  
Cephalic process broadly ovate in both sexes, obtuse apically in ♀.. **normanbyensis**
- 14 (13). Elytron brown, duller apically; cephalic process rounded apically in ♂.. **latirostris**

Elytron reddish basally and black apically; cephalic process subtruncate apically in ♂ ..... **kolbei**

## KEY TO LARVAE

1. Caudal process with emargination toothed ..... 2  
Caudal process with emargination even, not toothed ..... 4
- 2 (1). Teeth of emargination acute..... 3  
Teeth of emargination broadened apically, 2 or 3 on each side..... **pinangae**
- 3 (2). Emargination of caudal process secondarily deeply cleft at middle, with 2 or 3 distinct teeth on each side ..... **kolbei**  
Emargination of caudal process not cleft at middle, fairly straight in center and with quite small teeth..... **latirostris**
- 4 (1). Caudal process with tips of arms fairly close, much closer than width of emargination ..... 5  
Caudal process with tips of arms distant, not much closer than width of emargination ..... 6
- 5 (4). Base of caudal emargination much nearer spiracles than tips of arms..... **biroi**  
Base of caudal emargination closer to tips of arms than to spiracle..... **calami?**
- 6 (4). End of arm of caudal process curved inward ..... **atra**  
End of arm of caudal process directed backward ..... **legalis**

**Ceratispa lor'iae** (Gestro), 1895

DISTRIBUTION: Papua (Moroka; GENOVA).

**Ceratispa spiniceps** (Weise), 1911

Ifar, E Cyclops Mts., 350–600 m, 21 Aug. 1957, Hardy; 23 June 1959, Gressitt, on palms. The Mt. Lamington specimens I recorded in 1957 are not this species.

HOST: Palms.

DISTRIBUTION: N New Guinea; Biak (AMSTERDAM).

**Ceratispa biroi** Gestro, 1897 (p. 232, pl. 15, f. c) Fig. 10, a.

Several, Bomberi, near Fak Fak, Vogelkop, 7 June 1959, Gressitt; Maprik, Sepik Distr., 15 Oct. 1957, Gressitt; behind Kotanika, Cyclops, 17 Oct. 1957, Gressitt.

*Larva*: The body is broad with long lateral processes; caudal process is large with very thick, strongly arched tuberculate arms.

HOST: Palms, including rattans.

DISTRIBUTION: W and N New Guinea (Berlinhafen; BUDAPEST).

**Ceratispa metallica** (Gestro), 1885

One, close, but possibly different, Maprik, 1957, and another at Wewak, 1959, Gressitt, on rattans.

HOST: Rattan palms.

DISTRIBUTION: E New Guinea (Fly R.; GENOVA).



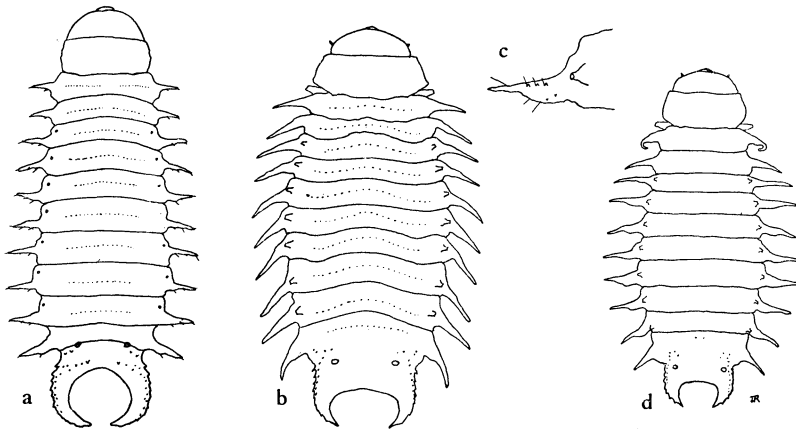


Fig. 10. a, *Ceratispa biroi* Gestro, larva; b, *C. atra* Gressitt, larva; c, *C. legalis* n. sp., lateral process of larva; d, same, larva.

***Ceratispa atra* Gressitt, 1957 (p. 233, f. 7, a, b) Fig. 10, b.**

Additional material, including larvae, at Bubia, near Lae, 21 July 1959, Gressitt.

*Larva*: Rather broad and flat with long lateral processes; caudal process broad, with short, stout curved arms.

HOST: *Korthalsia beccarii* (rattan).

DISTRIBUTION: NE New Guinea (Bubia; BISHOP).

***Ceratispa legalis* Gressitt, n. sp. Fig. 10, c, d.**

*Male*: Black, slightly tinged with greenish on pronotum and greenish-blue on elytron; antenna reddish pitchy, head slightly reddish; abdomen reddish on posterior border; legs reddish.

Head about as long as broad; central portion squarish, deeply grooved medially, feebly grooved near side and rugose-punctate; cephalic process reaching slightly beyond middle of scape, subparallel above, rounded-truncate apically, but slightly concave at middle of apex, finely grooved and punctured above; postocciput constricted above, sparsely punctured; frontoclypeus fairly narrow, grooved at side, feebly punctured, broadened anteriorly and continuous with underside of cephalic process which is grooved medially. Antenna  $1/3$  as long as body, moderately stout; scape less than twice as long as broad, heavily punctured; segment 2 slightly broader than long,  $2/3$  as long as 3; 4 slightly shorter than 3, equal to 5, barely longer than 6; 7 nearly as long as 1; 8-10 equal, each slightly shorter than 7; 11 barely as long as 7. Prothorax broader than long, narrowed anteriorly with side fairly straight and oblique; anterolateral angle rounded-obtuse, slightly projecting, oblique to anterior angle which is obtuse and distinctly projecting; anterior margin strongly obtuse; posterolateral angle slightly prominent, deeply incised to form 2 angles, the 1st somewhat broadly rounded and the 2nd narrowed but blunt; disc feebly convex, closely and deeply punctured. Scutellum narrower and acute apical-

ly. Elytron moderately broad, widened behind middle, obtusely-rounded apically; disc deeply punctured in regular rows, the punctures becoming weaker posteriorly; alternate interstices distinctly raised and rugose, subcarinate apically, the 1st carina reaching external margin. Ventral surfaces finely and sparsely punctured, with larger punctures at side of thorax. Legs stout, deeply punctured; hind femur not quite reaching apex of abdominal segment 2. Length 10.5 mm; breadth 3.4.

Holotype, ♂ (BISHOP 2927), Keravat, 25 m, Gazelle Pen., New Britain, 4 July 1959, slender-leafed rattan, Gressitt; 4 paratypes and immature stages, same data.

Differs from *C. atra* in having cephalic process shorter and more parallel-sided, in having prothorax shorter with punctures of less regular size and elytron more strongly carinate apically.

*Biology*: The immature stages are found between petiole bases and main stem of terminal or subterminal fronds or inflorescences of slender rattans.

*Larva*: Moderately broad, narrowed posteriorly. Head short, granulose, depressed in middle, with a sinuate oblique line extending to between eyes and antenna; setae slightly longer than antenna; pronotum granulose on the slightly pigmented major portion. Lateral processes long, stout and sharply spined basally, very slender apically. Caudal process stout, broadly emarginate with arms distant, each strongly tapered, acute and raised apically with outer edges bearing fairly long teeth tipped with setae.

HOST: Rattan with slender leaflets.

DISTRIBUTION: New Britain.

***Ceratispa latirostris*** (Gestro), 1885 (p. 233, pl. 15, f. d, e)

The larva included in the key is not associated for certain.

HOST: Palms.

DISTRIBUTION: E and N New Guinea (Fly R.; BUDAPEST).

***Ceratispa kolbei*** (Gestro), 1913 Fig. 11, a.

*Larva* (not associated for certain): Lateral processes short anteriorly; caudal process long, with arms long and arched, and emargination deep, cleft at middle and toothed on each side of middle.

HOSTS: Palms, including rattans.

DISTRIBUTION: NE New Guinea (Ramu R.; ZMB and GENOVA).

***Ceratispa brandti*** Gressitt, n. sp.

*Male*: Black above, slightly reddish at apex of cephalic process and extreme apex of elytron; ventral surfaces pitchy red, blacker at sides; legs ochraceous, partly pitchy on tibiae. Body almost entirely glabrous except on legs.

Head much longer than broad, central portion rectangular, slightly longer than broad, grooved medially, rugose-punctate, raised at side above eye; cephalic process twice as long as broad, slightly broadened preapically, rounded apically, moderately concave and sparsely punctured above; postocciput deeply constricted above, heavily punctured; frontocly-

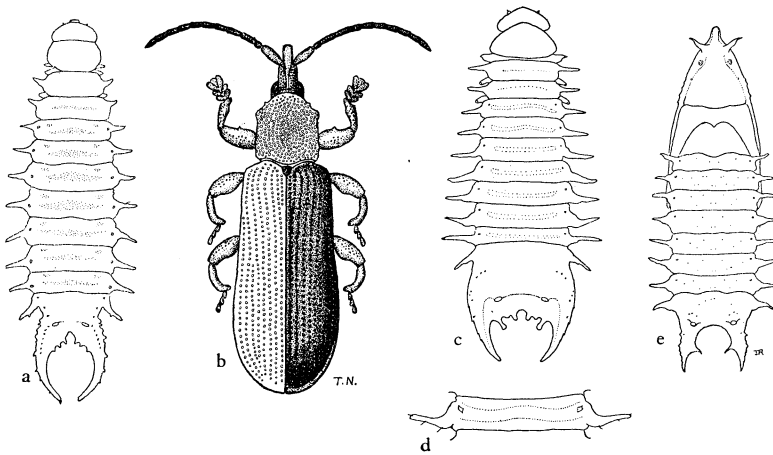


Fig. 11. a, *Ceratispa kolbei* (Gestro), larva; b, *C. pinangae* n. sp.; c, same, larva; d, same, middle abdominal tergite; e, same, pupa, dorsal view.

peus moderately broad, shiny, irregularly punctured, continued as undersurface of cephalic process, broadest under antennal insertion. Antenna not quite  $1/2$  as long as body, somewhat thickened and compressed beyond middle, striate on segments 7–10; scape cylindrical, twice as long as broad; segment 2 subcylindrical, oblique apically, nearly reaching apex of cephalic process; 3 shorter than 1, barely longer than 4; 4–6 subequal; 7 nearly as long as 1; 8–10 slightly shorter, subequal; 11 longest. Prothorax slightly broader than long, moderately narrowed anteriorly; anterolateral angle obtuse and slightly prominent, emarginate to anterior angle which is blunt and slightly projecting; anterior margin strongly convex; posterolateral angle with a deep emargination, leaving a blunt posterior tooth; disc moderately convex, deeply and densely punctured, with some small punctures on interspaces. Scutellum short, subrounded behind. Elytron slightly widened at end of basal  $1/6$ , feebly broadened behind middle, rounded-truncate apically; disc with rather small deep punctures, the interspaces moderately raised and somewhat rugose, 2nd and 4th carinate apically but not reaching apical margin. Ventral surfaces finely and sparsely punctured, more heavily so on lateral portions. Legs moderately stout; hind femur reaching to end of 2nd  $1/3$  of abdominal segment 2. Length 10.9 mm; breadth 2.7.

*Female*: Cephalic process not quite reaching to apex of scape, subparallel-sided, rounded apically and deeply grooved. Length 11.8 mm; breadth 2.95.

Holotype, ♂ (BISHOP 2928), Wakaiuna, Sewa Bay, Normanby I., 5–9 Nov. 1956, on palm, Brandt; allotype, 4 paratypes, same data.

Differs from *C. atra* in being more slender with cephalic process much longer, flatter and rounded apically, and in having prothorax longer and elytra more slender.

DISTRIBUTION: Normanby I.

***Ceratispa normanbyensis* Gressitt, n. sp.**

*Male*: Reddish ochraceous to pitchy black: head pitchy in middle, reddish on cep-

halic process and neck; antenna pitchy red basally and pitchy black apically; prothorax and scutellum ochraceous; elytron ochraceous on basal 2/5, pitchy on remainder with dark portion extending obliquely forward along suture, and apical margins dark reddish; ventral surfaces pale ochraceous but pitchy black on each side of middle of abdominal segments 2-4.

Head much longer than broad; central portion rectangular, slightly narrowed anteriorly, grooved medially, closely punctured, raised at side above eye; cephalic process slightly longer than central portion, broadened preapically, rounded apically but slightly emarginate at middle of apex, its upper surface concave posteriorly and weakly punctured; postocciput strongly constricted above, more closely punctured; frontoclypeus rather broad, smooth and sparsely punctured, continuous with undersurface of cephalic process, both with straight erect golden hairs. Antenna 2/5 as long as body, moderately compressed distally; scape cylindrical, fully twice as long as broad; segment 2 cylindrical, as long as broad; 3 nearly twice as long as 2, subequal to 4 and 5; 6 slightly longer than 3; 7 as long as 1; 8-9 each as long as 6; 10 nearly as long as 7; 11 as long as 1. Prothorax not quite as long as broad, slightly narrowed to anterolateral angle which is rounded-obtuse and slightly projecting; anterior angle subacute and projecting; anterior margin strongly convex; side slightly sinuate; posterolateral angle deeply emarginate followed by a blunt tooth which does not project as far as lateral margin; disc evenly convex, grossly punctured with some fine punctures in interspaces. Scutellum broad, obtuse behind. Elytron slightly widened to end of basal 1/6 then slightly narrowed and broadened behind middle; lateral margin moderately broad, obliquely declivitous; apex truncate and feebly emarginate, declivitous; disc with regular moderate punctures, many with small tubercles at sides; interstices moderately raised and rugose, 2nd and 4th carinate apically, the latter reaching margin. Ventral surfaces minutely punctured along median portion, more heavily punctured at sides and on prosternum. Legs stout; hind femur reaching beyond middle of abdominal sternite 2. Length 10.9 mm; breadth 2.9.

*Female*: Cephalic process reaching just beyond middle of antennal segment 2, broadest just beyond middle, narrowed and obtusely rounded apically. Length 11 mm; breadth 3.05.

Holotype, ♂ (BISHOP 2929), Wakaiuna, Sewa Bay, Normanby I., 5-9 Nov. 1956, palms, Brandt; allotype, ♀ and 8 paratypes, same data.

Differs from *C. latirostris* in having the cephalic process much broader and flatter, the prothorax broader, with more prominent angles and the elytron broader with wider margin and smaller punctures posteriorly.

HOST: Palms.

DISTRIBUTION: Normanby I.

*Ceratispa pinangae* Gressitt, n. sp. Fig. 11, b-e.

*Male*: Reddish ochraceous (testaceous in dried specimen); elytral disc pale brown, ochraceous apically and at extreme base and along suture. Body glabrous except for a very few hairs on underside of head, apices of tibiae and tarsal pads.

Head much longer than broad; central portion subrectangular, longer than broad, extending beyond eyes for more than 1/2 its length, deeply grooved medially, coarsely punc-

tured on remainder, with lateral margin considerably raised behind middle; cephalic process longer than broad, widest just before apex, obtuse apically, somewhat flat and grooved postmedially, with lateral margin distinctly raised; postocciput strongly constricted between hind margins of eyes, then convex and moderately punctured; frontoclypeus broad, smooth and feebly punctured, parallel-sided and continuous with undersurface of cephalic process, slightly concave anterior to eyes. Antenna  $2/5$  as long as body; scape cylindrical, fully twice as long as broad, nearly twice as long as segment 2; 3 slightly shorter than 1; 4 slightly longer than 2, barely longer than 5 and 6;  $7=4$ ; 8-10 equal, each shorter than 7 and more flattened; 11 as long as 3. Prothorax as long as broad, subparallel at side, but slightly narrowed anterior to middle; anterior margin strongly convex; anterolateral angle obtusely rounded, slightly projecting, feebly emarginate between it and anterior angle; posterolateral angle slightly irregular, rounded above and emarginate below, with a small tooth above basal margin but not projecting; disc flattish above, very coarsely and densely punctured. Scutellum longer than broad, rounded at side, obtuse apically. Elytron twice as long as head and prothorax combined, slightly expanded in basal  $1/4$ , more broadly expanded behind middle and rounded apically; disc somewhat wrinkled, with regular rows of fairly deep punctures, the punctures mostly subequal to interspaces longitudinally and slightly smaller than interspaces transversely; interstices feebly raised posteriorly. Ventral surfaces shiny, sparsely and minutely punctured except for a few deep punctures on sides of thorax; metasternum very flat beneath. Legs stout and heavily punctured; hind femur nearly reaching apex of abdominal segment 2; fore and middle femora each with a preapical internal tooth. Length 10.9 mm; breadth 4.05.

Holotype, ♂ (BISHOP 2930), Mangrowawa, 100 m, central Biak, 29 May 1959, *Pinanga* sp., Gressitt; several paratypes and immature stages, same data, Gressitt and Maa.

Differs from *C. kolbei* in having the cephalic process broadened apically and obtusely punctate, the interocular area narrower and strongly raised at sides, the pronotum flatter above and much more grossly punctured and the elytra rounded apically and more finely punctured.

*Biology*: The immature stages are found between the petiole bases and main trunk of *Pinanga* palms. The adults are on the undersides of new fronds when not found in the larval niche ovipositing or in the pupal cell.

*Larva*: Strongly flattened; subparallel-sided. Head much longer than broad, obtusely rounded at side, micropunctulate above with only 3-4 setae at side as long as antenna; 3 distinctly pigmented eyes arranged vertically followed by 3 incompletely pigmented eyes. Pronotum rounded-obtuse at side, entirely micropunctulate. Lateral processes subequal, each more than  $5\times$  as long as broad. Mesothoracic spiracle very much larger than abdominal spiracles which are obliquely truncate apically. Abdominal tergites each micropunctulate and with a broad granulose band preceded at each end by a short granulose groove. Caudal process as broad as middle of body, very flat on basal  $1/2$ , with each arm tapering, acute and slightly bent inwards, with several thorn-like tubercles on outer sides; inner edge of emargination with 3 processes on each side, outer 2 broadened apically and bent slightly downwards, and middle one narrowed apically, bent upward and blacker than others.

HOST: *Pinanga* sp.

DISTRIBUTION: Biak.

***Ceratispa palmivora*** Gressitt, n. sp.

*Male*: Reddish brown to black: head reddish to pitchy; antenna dark reddish, pitchy at apices of segments; prothorax reddish ochraceous; scutellum ochraceous; elytron black, reddish on extreme base and basal portion of suture, dull reddish on posterior portion of apical margin, extreme apex and posterior portion of suture; ventral surfaces red, paler on thorax; legs pale ochraceous, reddish at knees. Body with only a few erect hairs on frontoclypeus besides those on legs.

Head much longer than broad; central portion as long as broad, slightly narrowed anteriorly, grooved medially, the remainder irregular, rugose-punctate; cephalic process longer than central portion of head, nearly parallel-sided, rounded apically, concave above and feebly rugose; postocciput constricted above, coarsely punctured; frontoclypeus nearly parallel-sided, smooth and feebly punctured, continuous with undersurface of frontoclypeus and slightly widened anterior to eyes. Antenna not quite 1/2 as long as body, feebly compressed apically; scape cylindrical, twice as long as broad; segment 2 nearly as long as broad; 3 nearly as long as 1, longer than 4; 5 nearly as long as 3, barely longer than 6; 7=3; 8-10 subequal, each as long as 6; 11 slightly longer than 1. Prothorax as long as broad, nearly parallel-sided, slightly narrower at anterolateral angle than near base; former obtuse, not prominent, oblique to anterior angle which is bluntly produced; posterolateral angle emarginate with a small blunt tubercle behind emargination; disc feebly convex, entirely closely punctured. Scutellum short, obtuse behind. Elytron slightly more than twice as long as head and prothorax combined, subparallel anteriorly, evenly broadened behind, with apex rounded emarginate; disc with subregular punctures, with interstices moderately raised and rugose, 2nd and 4th moderately carinate apically, the latter reaching apex. Ventral surfaces smooth, shiny, feebly punctured except at sides of thorax. Legs stout; hind femur reaching beyond middle of abdominal segment 2. Length 10 mm; breadth 2.05.

Holotype, ♂ (BISHOP 2931), Maprik (Tamaui), 150 m, Sepik Distr., NE New Guinea, 4 Nov. 1957, in a palm with narrow pinnae, Gressitt; 3 paratypes and immature stages, same data, except 1 on *Calamus*.

Differs from *kolbei* in being more slender, with cephalic process more concave above and more narrowly rounded apically with central portion of head narrower and more rugose, with anterolateral angle of prothorax less prominent and elytron longer and more weakly punctured.

*Larva*: Long, slender, moderately thick. Head broadly rounded at side with several grooves and a few punctures on central portion. Pronotum grooved medially, irregularly rugose on sclerotized portion. Lateral processes slender with not more than 2 or 3 teeth, some of the teeth subapical, the processes gradually increasing in size posteriorly. Abdominal spiracles strongly raised and oblique. Caudal process long, deeply emarginate with 3 stout teeth on each inner side of emargination; arm slightly arched, terminated with a small inferior and large superior acute tooth; side with several sharp teeth.

HOST: Pinnate palm.

DISTRIBUTION: NE New Guinea.

***Ceratispa meijerei*** (Weise), 1911 (p. 235, f. 7c)

HOST: Palm.

DISTRIBUTION: Waigeu, Biak (Biak; AMSTERDAM)

*Ceratispa calami* Gressitt, n. sp.

*Male*: Black to pale testaceous: head reddish pitchy, ochraceous on neck; antenna pitchy black, tinged with reddish on basal  $2/3$ ; prothorax pale ochraceous with most of disc black from apex to base, leaving only lateral portion pale. Scutellum ochraceous, dull by reflection of black surroundings; elytron black, slightly reddish on apical  $1/3$  of lateral margin, extreme apex, and bottoms of postmedian punctures on sutural  $1/2$  of disc; ventral surfaces ochraceous with sides and apex of abdomen pitchy black; legs pale with tarsi, most of tibiae and apices of femora pitchy. Body glabrous except for a very few hairs on undersides of head and on legs.

Head much longer than broad, central portion slightly longer than broad, slightly narrowed anteriorly, rather flat, finely grooved medially, punctured posteriorly and slightly raised at margin above eye; cephalic process as long as central portion of head, flattened and slightly broadened distally, evenly rounded at apex, concave above, finely punctured and finely grooved medially; postocciput constricted anteriorly, sparsely but deeply punctured; frontoclypeus very narrow, slightly constricted by eyes, broadened under antennal insertions and continued as flat, feebly punctured undersurface of cephalic process. Antenna slightly more than  $1/2$  as long as body, fairly slender, very feebly compressed distally and feebly striate on segments 5–11; scape cylindrical, twice as long as broad, nearly twice as long as segment 2; 3 nearly as long as 1, slightly longer than 4; 4–6 equal; 7 as long as 1; 8–10 subequal, each slightly shorter than 7; 11 longer than 1. Prothorax slightly longer than broad, narrowed anteriorly, straight at side, slightly narrower at anterolateral angle than at base, former obtuse and hardly projecting; oblique to side of anterior margin, which is convex; posterolateral angle nearly square, slightly tuberculate; disc feebly convex, deeply and closely punctured. Scutellum triangular, acute behind. Elytron not quite twice as long as head and prothorax combined, narrow and parallel anteriorly, evenly widened in posterior  $1/2$ , subtruncate apically; disc deeply punctured in regular rows with interstices moderately raised and finely rugose, 2nd and 4th strongly raised apically, the latter reaching apical margin. Ventral surfaces smooth and shiny, sparsely and finely punctured with a few larger punctures at sides of thorax and base of abdomen. Legs not very stout; hind femur reaching middle of abdominal segment 2. Length 9.6 mm; breadth 1.95.

Holotype, ♂ (BISHOP 2932), between Bomberi and Kalimati, 750 m, near Fak Fak, 10 June 1959, on broad-leafed rattan, Gressitt.

Differs from *C. meijerei* in being more slender, largely black above with antenna more slender, cephalic process slightly smaller and elytron more parallel-sided anteriorly with lateral margins less expanded and punctures slightly larger.

*Larva* (not associated for certain): Moderately broad, narrowed posteriorly. Head rounded at side, slightly uneven and granulose above with antenna shorter than setae which latter are not limited to margin. Pronotum fairly even, finely granulose. Lateral processes fairly long, subequal, stout basally, bearing several acute teeth, tapering and acute distally. Abdominal spiracles somewhat strongly raised; abdominal tergites finely punctured with an arcuate groove across middle. Caudal process stout, thickened at side with arms tapering, acute, recurved and nearly touching at apices, slightly elevated at extreme tips; emargi-

nation even; outer edge with strong short teeth. Length 14 mm; breadth (including processes) 7.

HOST: *Calamus* (?) sp.

DISTRIBUTION: Vogelkop.

***Ceratispa buergersi*** (Uhmann), 1952

This species was shifted from *Plesispa* by Uhmann in the Coleopt. Catal., ed. 2, part 2, 1958.

DISTRIBUTION: NE New Guinea (Sepik; ZMB).

Genus ***Oxycephala*** Guérin-Ménéville, 1838

***Oxycephala cornigera*** Guérin-Ménéville, 1838 (p. 236, f. 8a, b, d)

Some were collected at Keravat, New Britain, in rattans and *Pinanga*, 9 Oct. 1957 and 4 July 1959, Gressitt. New to New Britain.

HOSTS: *Cocos*, *Calamus*, *Pinanga*, *Heliconia* (?).

DISTRIBUTION: New Ireland (Port Praslin; neotype Gilingil, BISHOP); New Britain.

***Oxycephala ruficollis*** (Spaeth), 1936 (p. 237, f. 8, c, e, f) Fig. 12, a.

Many taken in coconut, Lorengau, Manus, 28 June 1959, Gressitt; 1 on *Heliconia*.

*Pupa*: Head with cephalic process parallel-sided, truncate, twice as long as broad; supraocular slender, nearly horizontal, suddenly tapered beyond middle and with slender acute apex; pronotum feebly striate transversely and with few small tubercles near anterolateral angle; middle abdominal tergites with 4 widely spaced tubercles anteriorly and 4 more closely spaced ones posteriorly; lateral processes longest on postmedian segments, irregularly tapering and somewhat spiral in central portion; caudal process with arms arcuate and widely divergent, somewhat evenly tapering and acute.

HOSTS: *Cocos nucifera*, *Heliconia* (?)

DISTRIBUTION: Admiralty Is. (Manus, Los Negros; BM).

Genus ***Aulostyrax*** Maulik, 1929

***Aulostyrax nuciferae nuciferae*** Maulik, 1929 Fig. 12, b, c.

Numerous specimens, near Auki and Tangtalau, N. Malaita, 5–200m, in coconut, *Pinanga*, and other palms, Sept.–Oct. 1957, Gressitt.

*Biology*: All stages occur between petiole-bases and main stems of palms. The larvae burrow in the inner surface of the petiole-bases. The adults feed on undersurfaces of fronds.

*Larva*: Broad and slightly widened in central portion; head fairly flat, depressed medially, with oblique and subtransverse grooves between depression and eyes, remainder finely reticulate; eyes: 2 black, distinct, 2–3 partly pigmented and 1 or more unpigmented; pronotum short, even, reticulate, with a fine even groove and some basal irregularities; middle abdominal tergites with a sinuate transverse groove and no callosities;



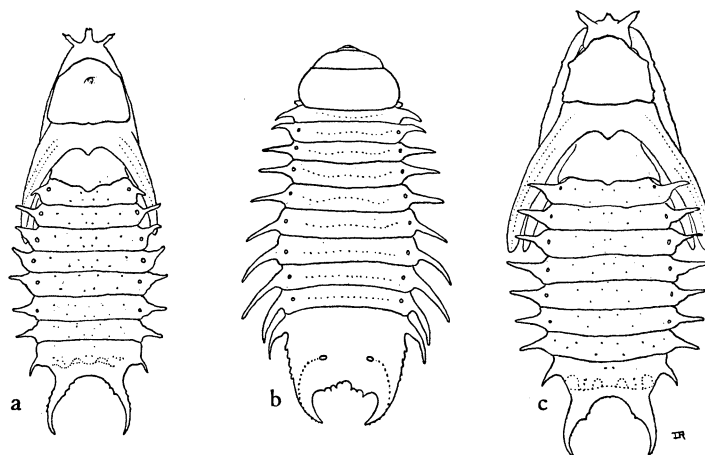


Fig. 12. a, *Oxycephala ruficollis* (Spaeth), pupa; b, *Aulostyrax nuciferae nuciferae* Maulik, larva; c, same, pupa.

lateral processes long, subequal, but those on thorax slightly shorter, each with a subequal tuberculate portion and slender and gradually tapering to apex; caudal process broadest near base, with arms short, stout, suddenly tapered and subacute apically, with small teeth and setae on outer ridges; emargination deepest in middle, with 3-4 sharp teeth on each side of inner emargination.

*Pupa*: Head with median cephalic process subtriangular, tapering but blunt apically, slightly longer than broad; supraocular process oblique, somewhat flattened, tapering somewhat irregularly; pronotum finely granulate and transversely striate, with several distinct tubercles at and above anterolateral angle; middle abdominal tergites each with 4 widely spaced anterior tubercles and 2 widely spaced posterior ones, with a submedian vestigial pair; lateral processes slightly longer on middle segments, mostly stout basally with small tubercles on central portion, last one more slender and slightly shorter; caudal process with arms broad basally and slender, slightly incurved and acute apically; emargination deep, with 2 weak teeth at each side.

HOSTS: *Cocos nucifera*, *Pinanga* sp.

DISTRIBUTION: Malaita I. (BM).

***Aulostyrax nuciferae incerta* (Uhmann), 1930 (p. 239)**

This is probably a good subspecies of *nuciferae*.

HOST: *Metroxylon* sp.

DISTRIBUTION: Bougainville I. (Kieta; neotype UHMANN coll.).

***Aulostyrax heterospathi* Gressitt, 1957 (p. 239, f. 9)**

HOST: *Heterospathe* sp., *Bentnickiopsis* sp.

DISTRIBUTION: Guadalcanal I. (Gold Ridge; BISHOP)

Genus *Calamispa* Gressitt, 1957*Calamispa fasciata* Gressitt, 1957 (p. 241, f. 10)HOST: *Calamus* sp.

DISTRIBUTION: Guadalcanal (Jonapau-Suta; BISHOP).

Genus *Callistola* Dejean, 1837

## KEY TO ADULTS

1. Interantennal area concave, without a process (*Freycinetivora*) ..... 2
- Interantennal area produced into a cephalic process (*Callistola*, s. str.) ..... 6
- 2 (1). Pronotum quite sparsely punctured, particularly on central portion..... 3
- Pronotum quite densely punctured except anteromedially ..... 4
- 3 (2). Head pale; elytron with central and apical bands ..... **freycinetiae**
- Head dark; elytron entirely pale, or dark posteriorly ..... **varicolor**
- 4 (2). Alternate interstices rather weakly raised; elytron pale basally..... 5
- Alternate interstices strongly raised; elytron entirely dark; prothorax subevenly rounded anterolaterally ..... **masoni**
- 5 (4). Elytron pale anteriorly and black posteriorly; length 8 mm ..... **dimidiata**
- Elytron with a postmedian band extending forward on suture; length 6.5 mm ..... **wrighti**
- 6 (1). Second and 3rd elytral costae not distinctly united on apical declivity; 2nd generally ending free at top of declivity ..... 7
- Second and 3rd elytral costae united on apical declivity ..... 12
- 7 (6). Elytron long, subparallel-sided, pale basally and dark posteriorly..... 8
- Elytron considerably broadened postmedially, pale apically and on a subcentral band which is broader in middle..... **pulchra**
- 8 (7). Pronotum blackish, rarely pale with anterior portion dark ..... 9
- Pronotum pale; only extreme base of elytron pale, remainder green..... **omalleyi**
- 9 (8). Elytron pale on basal 1/3..... 10
- Elytron pale on basal 2/3..... 11
- 10 (9). Central portion of head closely punctured; pronotum densely punctured except along median line ..... **uhmanni**
- Central portion of head feebly punctured; pronotum with some impunctate areas..... **angusta**
- 11 (9). Prothorax convex at side; body 3× as long as broad..... **tripartita**
- Prothorax parallel-sided, slightly concave; body more than 3× as long as broad..... **major**
- 12 (6). Humeri pigmented ..... 13
- Humeri pale ..... 19
- 13 (12). Basal 2/5 or more of elytron entirely pigmented ..... 14
- Basal portion not entirely pigmented, pale on sutural-scutellar area ..... 16
- 14 (13). Elytron with a postmedian pale band, widened at suture ..... 15

- Elytron without a submedian pale band, blue almost to apex ..... **bella**
- 15 (14). Dark apical triangle of pronotum not nearly reaching middle; center of pronotum densely punctured ..... **pulchra**  
 Dark apical triangle of pronotum reaching to behind middle; center of pronotum finely and sparsely punctured..... **montana**
- 16 (13). Body not quite 3× as long as broad ..... 17  
 Body fully 3× as long as broad..... 18
- 17 (16). Pale areas ochraceous; metallic areas blue to purplish blue; apex of aedeagus sinuate in lateral outline ..... **speciosa speciosa**  
 Pale areas yellowish testaceous; metallic areas greenish steel blue; apex of aedeagus straight in lateral outline ..... **speciosa fasciata**
- 18 (16). Pronotum punctured on median portion; elytron with only humeral mark and apex purplish ..... **papuensis**  
 Pronotum impunctate on median portion; elytron with a basal band, narrowed at suture, as well as apex, bluish ..... **zonalis**
- 19 (12). Elytron pale on basal 2/5 or more ..... 20  
 Elytron with 2 metallic bands, the 1st sometimes reduced to an isolated spot; length 16 mm..... **elegans**
- 20 (19). Pronotum black or almost entirely black..... 21  
 Pronotum largely pale, sometimes with median black stripe ..... 22
- 21 (20). Pronotum entirely black, densely punctured, impressed on each side; length 8 mm ..... **pandanella**  
 Pronotum pale at sides, sparsely punctured, not impressed on each side of center; length 13–16 mm ..... **devastator**
- 22 (20). Pronotum with dark apical areas extending behind middle..... 23  
 Pronotum with dark apical area not extending behind middle ..... 24
- 23 (22). Prothorax slightly emarginate at side, as broad at anterolateral angles as at base; median black stripe complete, broad..... **szentivanyi**  
 Prothorax straight at side, slightly widened anteriorly; median dark stripe vague posteriorly ..... **metseleari**
- 24 (22). Elytron pale on basal 2/5 or more..... 25  
 Elytron metallic except on extreme base, scutello-sutural area and apex..... **maai**
- 25 (24). Body not nearly 3× as long as broad ..... 26  
 Body nearly 3× as long as broad ..... 28
- 26 (25). Scutellum pale; antenna pitchy ..... 27  
 Scutellum black; antenna black..... **dilutipes boisduvali**
- 27 (26). Posterior 1/2 of elytron blue, except apex; venter pale; legs pale except for knees; coastal ..... **dilutipes dilutipes**  
 Posterior 1/3 of elytron blue, except for sutural angle and outer margin just before apex; venter largely pitchy; legs black except for basal portion of fore femur; montane..... **dilutipes buloloensis**
- 28 (25). Prothorax broader than long, not extremely closely punctured..... 29  
 Prothorax longer than broad, very closely punctured, slightly emarginate at side; length 10 mm ..... **puncticollis**

- 29 (28). Prothorax slightly broadened anteriorly; antenna and central portion of head black; length 9–12 mm..... **swartensis**  
 Prothorax not broadened anteriorly; antenna and central portion of head brown or pitchy; length 7–8 mm..... **fordi**

## KEY TO LARVAE

1. Lateral process of abdominal segment 8 several times as long as broad; arm of caudal process ending in an evenly incurved tapering tip (*Freycinetivora*) ..... 2  
 Lateral process of segment 8 stout, rarely longer than breadth at base; arm of caudal process generally terminating with 2 stout teeth, or at least a blunt external tubercle and inner edge of inner tooth not evenly arcuate (*Callistola*, s. str.) ..... 6
- 2 (1). Tips of arms of caudal process not much closer than caudal spiracles ..... 3  
 Tips of arms of caudal process much closer than caudal spiracles ..... 4
- 3 (2). Caudal spiracles obliquely ovate; upper side of arm of caudal process with more than 10 small teeth ..... **freycinetiae**  
 Caudal spiracles longitudinally ovate; upper side of arm of caudal process with less than 10 teeth ..... **masoni**
- 4 (2). Emargination of caudal process reaching barely 2/5 distance to spiracles ..... 5  
 Emargination of caudal process reaching nearly 1/2 distance to spiracles... **wrighti**
- 5 (4). Caudal process distinctly narrowed apically; arm with many distinct small tubercles externally ..... **dimidiata**  
 Caudal process hardly narrowed towards apex; arm with only very feeble, widely spaced serrations externally ..... **varicolor**
- 6 (1). Caudal process with a distinct tooth at center of emargination; emargination generally reaching 1/2 way to spiracles..... 7  
 Caudal process without a distinct tooth at center of emargination; emargination not reaching 1/2 way to spiracles, inner tooth at end of arm nearly always larger than outer tooth ..... 15
- 7 (6). Caudal process not very strongly broadened apically..... 8  
 Caudal process very strongly broadened apically ..... 11
- 8 (7). Inner tooth of apex of arm of caudal process much larger than outer tooth..... 9  
 Inner tooth of apex of caudal process hardly larger than outer tooth; arms slightly distended preapically, outer margin nearly smooth ... **speciosa fasciata**
- 9 (8). Sides of arms of caudal process slightly convex, broadened postmedially..... 10  
 Sides of arms of caudal process nearly parallel; several ectoapical teeth .....  
 ..... **speciosa speciosa**
- 10 (9). Caudal process strongly toothed on outer edge of arm, with more than one ectoapical tooth ..... **dilutipes dilutipes**  
 Caudal process finely toothed on outer edge of arm, with a single ectoapical tooth ..... **dilutipes buloloensis**
- 11 (7). Caudal process not broadest at extreme apices of arms ..... 12  
 Caudal process broadest at extreme apices of arms ..... 13

- 12 (11). Outer tooth at apex of caudal arm as long as broad; inner tooth oblique and horizontal..... **elegans**  
 Outer tooth at apex of caudal arm broader than long; inner tooth subtransverse and elevated ..... **devastator**
- 13 (11). Apex of caudal arm with 2 distinct teeth ..... 14  
 Apex of caudal arm somewhat flattened and serrate on outer side of inner tooth..... **pulchra**
- 14 (13). Outer side of arm of caudal process slightly arched; tooth at middle of emargination obtuse; inner tooth at apex of arm not much larger than outer tooth ..... **montana**  
 Outer side of arm of caudal process straight; tooth at middle of emargination acute, longer than broad; inner tooth at apex of arm much larger than outer tooth ..... **szentivanyi**
- 15 (6). Emargination of caudal process shallow, subtransverse; terminal teeth of arm short, directed posteriorly ..... 16  
 Emargination of caudal process fairly deep, rounded; terminal teeth of arm rarely both short, inner one often subtransverse ..... 18
- 16 (15). Outer tooth at end of caudal arm broader, and extending much farther posteriorly than inner tooth; emargination very shallow ..... 17  
 Outer tooth at end of caudal arm hardly larger than inner tooth; emargination not extremely shallow, with a somewhat feeble obtuse tooth at center ..... **tripartita**
- 17 (16). Outer edge of caudal arm slightly arched; outer apical tooth not very hairy; emargination extending 1/5 distance to spiracles ..... **omalleyi**  
 Outer edge of caudal arm straight; outer apical tooth quite hairy; emargination extending 1/3 distance to spiracles ..... **uhmanni**
- 18 (15). Teeth at end of caudal arm subequal, or outer tooth larger than inner one..... 19  
 Inner tooth of caudal arm much larger than outer tooth ..... 20
- 19 (18). Arms of caudal process subparallel-sided; apex with outer tooth larger ... **angusta**  
 Arms of caudal process distinctly arched externally, wider at apex than at base; apex with 2 subequal teeth..... **maai**
- 20 (18). Space between apices of inner apical caudal spines greater than length of one spine ..... 21  
 Space between apices of inner apical caudal spines not greater than length of one spine ..... 22
- 21 (20). Caudal process slightly longer than broad, with inner terminal tooth oblique, twice as large as outer tooth ..... **swartensis**  
 Caudal process much longer than broad, arched at side; inner terminal tooth subtransverse, more than twice as large as outer tooth ..... **bella**
- 22 (20). Inner apical spine of caudal arm twice as long as outer spine ..... **metseleari**  
 Inner apical spine of caudal arm 3× as long as outer spine..... **pandanella**

Subgenus *Callistola* s. str.

*Callistola* (*Callistola*) *misolensis* (Spaeth), 1936

DISTRIBUTION: Misol (Misool) I. (BM).

**Callistola (Callistola) puncticollis** (Spaeth), 1936

DISTRIBUTION: W New Guinea (Vogelkop; BM).

**Callistola (Callistola) speciosa speciosa** (Boisduval), 1835 (p. 247, f. 11 a, b, e)

HOST: *Pandanus* spp.

DISTRIBUTION: E Indonesia; W and N New Guinea (Waigeu; PARIS)

**Callistola (Callistola) speciosa fasciata** (Weise), 1905 (p. 249, f. 11 c, d, f)

HOST: *Pandanus*.

DISTRIBUTION: E Papua (ZMB).

**Callistola (Callistola) papuensis** Gressitt, 1957 (p. 252, f. 12 e)

DISTRIBUTION: Papua (Moroka; MCZ).

**Callistola (Callistola) dilutipes dilutipes** (Weise), 1905 (p. 252, f. 13 a, d)

Numerous specimens with immature stages, Sentani, W Cyclops, Kotanika and Hollandia, 1957-8, Gressitt, 1959, Gressitt & Maa.

HOST: *Pandanus* spp.

DISTRIBUTION: New Guinea (Astrolabe Bay; ZMB).

**Callistola (Callistola) dilutipes boisduvali** (Weise), 1908 (p. 253, f. 13 e)

HOST: *Pandanus*.

DISTRIBUTION: New Guinea (Huon Pen.; LEIDEN ?).

**Callistola (Callistola) dilutipes buloloensis** Gressitt, 1957 (p. 254, f. 13 b, c, f)

HOST: *Pandanus*.

DISTRIBUTION: NE New Guinea (Bulolo; BISHOP).

**Callistola (Callistola) elegans** Gressitt, n. sp.

*Male*: Golden yellow (slightly paler in dry specimen) to pitchy or greenish: head shiny black above, pale beneath; antenna bluish black; prothorax pale with apical triangle black, tinged with bluish; scutellum shiny black; elytron yellow with 2 metallic green bands, 1st consisting of a large spot on sutural 1/2 of second 1/5, 2nd occupying apical 1/3; ventral surfaces pitchy on most of metasternum and abdominal segments 1-4, pale on remainder; legs black with basal portions of femora (basal 2/3 in fore femur) pale.

Head with central portion trapeziform, with a deep pit anterior to center, each side heavily punctured behind pit and smooth anterior to pit; cephalic process 1/3 as long as scape, fairly narrow; postocciptus impunctate; frontoclypeus broad, trapeziform, moderately

convex. Antenna  $2/5$  as long as body; scape irregularly thickened, widest before middle; segment 2 cylindrical,  $1/2$  as long as 1; 3rd  $1.5\times$  as long as 2, barely longer than 4; 5 and 6 equal to 3; 7 nearly as long as 1; 8-10 each subequal to 6; 11 as long as 1. Prothorax not quite as long as broad, strongly rounded anteriorly; anterolateral angle evenly rounded, slightly protruding; sides slightly concave, narrowed towards base; posterolateral angle slightly protruding, with a further projecting accessory protruding process; disc moderately convex, rather finely and not very closely punctured, with some impunctate areas across central portion, and apex minutely punctured. Scutellum narrowed and rounded-obtuse apically, slightly concave. Elytron slightly more than twice as long as head and prothorax combined, gradually widened from just behind humerus, feebly constricted just before middle and widest well behind apex; apex with a distinctly protruding rounded margin and then rather deeply emarginate before acute and strongly protruding sutural angle; disc with punctures regular and mostly about  $1/2$  as wide as interspaces transversely; alternate interstices distinctly raised throughout, more carinate apically. Ventral surfaces with moderate punctures on side of metasternum, middle of abdominal sternite 1, a broad band across most of sternites 2-3 and part of side of 4. Legs relatively slender; hind femur barely exceeding middle of sternite 2. Length 16.6 mm; breadth 5.4.

*Female*: Anterior elytral band complete, occupying most of basal  $2/5$  except for base and humerus; posterior band reddish at apex; elytral apex much less strongly protruding and with sutural angle very slightly produced. Length 16 mm; breadth 5.2.

Holotype, ♂ (BISHOP 2933), Bomberi, 750 m, center of Bomberai Peninsula, near Fak Fak, Vogelkop, on large *Pandanus*, 7 June 1959, Gressitt; allotype, paratype and immature stages, same data.

Differs from *C. speciosa* in being larger with elytral bands distinctly green and elytral apex much more produced, emarginate, and angulate at sutural angle.

*Larva*: Elliptical, fairly narrow and deep-bodied. Head obtusely rounded at side, grooved medially with oblique lines and callosities between groove and antenna, otherwise finely granulose; 5 pigmented eye-spots; a very few setae, shorter than antenna. Pronotum transversely and obliquely corrugated; middle abdominal tergites with 2 narrow transverse callosities with a groove between; lateral processes small, subequal, acute and pointing backward; caudal process with arms gradually divergent, outer edge of arm with well spaced blunt teeth above and below, and ending in a short external tooth and a longer inner tooth which curves upward and inward, and emargination slightly irregular.

HOST: *Pandanus*.

DISTRIBUTION: W New Guinea (Vogelkop).

#### *Callistola* (*Callistola*) *devastator* Gressitt, n. sp.

*Male*: Reddish (testaceous in dry specimen) to pitchy black and metallic green: head bluish black above, pale on frontoclypeus and underside of neck; antenna bluish black; prothorax largely black above, pale along lateral border and pitchy at edge of dark area; scutellum pitchy; elytron pale on slightly over basal  $1/2$ , on extreme apex and apical  $1/5$  of external margin, with apex of suture reddish, remainder metallic green; ventral surfaces pale on prosternum, mesosternum, abdominal sternite 5, and parts of sides of 3 and 4, pitchy on central portion of metasternum and blackish on most of remainder;

legs black with coxae and most of fore femur pale.

Head with central portions strongly transverse, trapeziform, heavily punctured except near apex and narrowly grooved at middle; cephalic process  $1/4$  as long as scape; frontoclypeus as broad as long, convex and somewhat transversely striate on lower portion. Antenna  $1/3$  as long as body; scape stout, thickest in middle; 2nd segment  $2/3$  as long as 1,  $3/4$  as long as 3; 3-7 subequal; 8-10 subequal, slightly shorter than preceding; 11 as long as 1; 7-10 slightly striate. Prothorax slightly broader than long; strongly rounded anteriorly; anterolateral angle rounded-obtuse, barely projecting; side nearly straight, slightly narrowed near basal angle which has a distinctly projecting tooth; disc slightly uneven, somewhat raised along median line, concave at middle of basal margin, slightly raised at middle of side and with somewhat irregular but not very closely spaced punctures, sparse near apex and along median line. Scutellum narrow, rounded-obtuse apically. Elytron not quite  $3\times$  as long as head and prothorax combined, somewhat gradually broadened from just behind humerus and more suddenly widened from middle; apex prominent, an evenly rounded expansion ectoapically, and slightly emarginate, and with sutural angle not projecting; disc with punctures mostly less than  $1/3$  as wide as interspaces transversely; alternate interstices raised throughout, more strongly so apically, 1st ridge reaching external margin at emargination. Ventral surfaces finely punctured and corrugated at side of metasternum, somewhat heavily punctured on most of abdominal sternites 1-3 except near posterior margins, and on middle of side of 4, a distinct transverse cavity at sides of 2-4. Legs relatively slender; hind femur barely exceeding middle of sternite 2. Length 15.2 mm; breadth 5.4.

*Female*: Elytral apex feebly produced ectoapically, partly pigmented.

Holotype, ♂ (BISHOP 2934), Swart Valley, W fork, 1350 m, Neth. New Guinea, on cultivated *Pandanus*, 17 Nov. 1958, Gressitt; allotype, ♀, many paratypes and immature stages, same data.

Differs from *dilutipes* in having the pronotum largely dark, more heavily and more sparsely punctured and straighter at side, with elytron broader and more broadly convex ectoapically with the metallic area broader and more greenish.

*Biology*: This species was very abundant and causing considerable damage through the adults and larvae feeding on the bases of the broad leaves which are used for various purposes by the local people.

*Larva*: Elliptical, widest in middle; head fairly small, with a broad median groove and oblique ridges and grooves towards antenna and eyes, and behind these broad flat callosities, the remainder vaguely granulose; 4 slightly pigmented eye-spots; middle abdominal tergites each with a long longitudinally creased callosity behind transverse groove and a narrower one anterior to groove; lateral processes subequal, very slightly larger posteriorly, somewhat evenly tapered, acute, directed backwards; caudal process with arm somewhat diverging, widest just before apex, each arm with moderately spaced tubercles above and below and with a large obtuse tooth on outer side of apex and a much longer acute one on inner side, which points slightly upward; emargination somewhat broader than deep and with a large subacute tooth at center.

*Pupa*: Head with a feeble swelling instead of median cephalic process, and supra-ocular process broad, flat above, granulose, widest in middle, subovate and slightly acumin-



ate; pronotum transversely wrinkled; middle abdominal tergites with anterior row of tubercles broadly interrupted and posterior row nearly continuous on central portion; lateral processes largest postmedially, stout, oblique, and finely tuberculate; caudal process broad and short, widest near apex; arm suddenly narrowed apically; emargination deep and even.

HOST: *Pandanus* (cultivated).

DISTRIBUTION: NC New Guinea.

*Callistola* (*Callistola*) *metselaari* Gressitt, n. sp. Fig. 13, a.

*Female*: Reddish (testaceous in dry specimen) to steel blue: head bluish black above, pale beneath and on cephalic process; antenna bluish black, slightly reddish near base; prothorax pale except for black apical area and pitchy median line; scutellum pitchy; elytron pale with a very broad purplish to steely blue band occupying most of posterior 3/5 except for extreme apex; ventral surfaces pale, pitchy on sides of metasternum, most of abdominal segments 1-2 and parts of 3-4; legs pitchy, basal portions of femora (basal 2/3 of fore femur) pale.

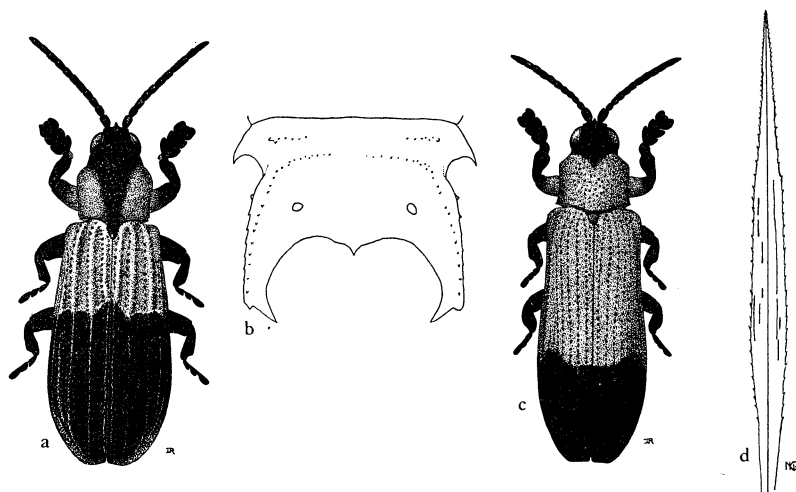


Fig. 13. a, *Callistola metselaari* n. sp.; b, *C. szentivanyi* n. sp., caudal end of larva; c, *C. swartensis* n. sp.; d, same, feeding marks of adult on *Freycinetia* leaf.

Head with central portion transverse, slightly narrowed anteriorly, deeply grooved before middle and deeply punctured on basal 2/3; cephalic process 1/3 as long as scape; postocciput constricted above and impunctate; frontoclypeus broad and evenly convex. Antenna slightly more than 1/3 as long as body; scape stout, thickest just beyond middle; 2nd segment 2/3 as long as scape; 3 longer than 2, subequal to 4-7; 8-10 shorter, subequal; 11 as long as 1. Prothorax broader than long, strongly convex anteriorly, slightly sinuate at side, with anterolateral angle weakly obtuse and not prominent; basal angle

slightly projecting, angularly emarginate, with posterior tooth exceeding anterior; disc evenly convex, with punctures moderately dense, but much sparser on anterior portion. Scutellum longer than broad, subacute apically and finely striate on concave preapical area. Elytron  $2.5\times$  as long as head and prothorax combined, subevenly widened from behind basal  $1/7$ , slightly constricted at middle and widest well behind middle; apex subevenly rounded, but slightly produced a short distance from sutural angle; disc with regular punctures which are more widely separated transversely than their diameters, alternate interstices moderately raised throughout, more strongly so on apical declivity, only innermost reaching apex. Ventral surfaces with moderately spaced shallow punctures on side of metasternum, most of abdominal segments 1-2 and middle of side of segments 3-4. Legs moderately stout; hind femur barely exceeding abdominal segment 2. Length 10.8 mm; breadth 4.

Holotype, ♀ (BISHOP 2935), Ifar, 450 m, Cyclops, Neth. New Guinea, *Freycinetia*, 24 Nov. 1958, Gressitt; 2 paratypes and larvae, W Cyclops 500 m, medium sized *Freycinetia*, 24 June 1959, Gressitt.

Differs from *C. dilutipes* in having head and pronotum more extensively dark and prothorax more parallel-sided and more projecting at posterolateral angle. Named for Dr. D. Metselaar, chief, Division of Malariology, Netherlands New Guinea, as a slight token of gratitude for extensive kindness.

*Larva* (not associated for certain): Caudal process long, slightly broadened apically; arms straight at side, with small teeth on borders, and apex with a fairly long slender posteriorly directed outer tooth and a longer, likewise acute, slender, internally directed, subtransverse inner spine; emargination broader than deep, evenly rounded (immature larva).

HOST: *Freycinetia* sp. (medium-sized).

DISTRIBUTION: N New Guinea.

**Callistola (Callistola) szentivanyi** Gressitt, n. sp.      Fig. 13, b.

*Female*: Reddish (ochraceous in dry specimen) to greenish blue: head purplish black above, pale beneath and on cephalic process: antenna bluish black; prothorax pale with a broad black median band which is nearly as broad as head anteriorly and slightly wider than base of scutellum on ending just before basal margin; scutellum pitchy black; elytron pale with a broad metallic band, purplish anteriorly and greenish posteriorly, extending from end of basal  $2/5$  to just before apex; ventral surfaces pale with side of metasternum, abdominal segment 1 and most of 2-4 pitchy black; legs black with basal portions of femora pale.

Head with central portion trapeziform, much wider than long, deeply grooved medially and heavily punctured except near apex; cephalic process  $1/4$  as long as scape; post-occiput impunctate; frontoclypeus broad, oblong, convex and transversely striate near mouthparts. Antenna barely over  $1/3$  as long as body; scape fairly slender, slightly arched; segment 2 twice as long as broad, nearly as long as 3 and equal to 4; 5 equal to 3 and 7; 6 and 8-10 subequal; 11 as long as 1. Prothorax barely broader than long, strongly rounded anteriorly anterolateral angle obtuse, slightly protruding; side feebly emarginate; basal angle slightly prominent and with a small protruding posterior tooth; disc subevenly convex, with moderately sparse, but irregularly spaced, moderate punctures, disappearing near

apex. Scutellum narrowed and subacute apically, concave and finely striate. Elytron not quite  $3\times$  as long as head and prothorax combined, slightly widened a short distance behind humerus, then widened again behind middle; apex rounded and slightly prominent ectoapically; disc with punctures mostly  $1/2$  as wide as interspaces transversely; alternate interstices moderately raised, more strongly but not carinately, towards apex. Ventral surfaces with moderately large punctures at side of metasternum, on most of abdominal sternites 1-2, basal portion of sternite 3 and middle of side of 4. Legs moderately slender; hind femur reaching just beyond middle of sternite 2. Length 12.6 mm; breadth 4.15.

Holotype, ♀ (BISHOP 2936), Baiyer R., 1120 m, western Highlands, NE New Guinea, in medium-sized *Pandanus*, 19 Oct. 1958, Gressitt.

Differs from *dilutipes* in being more extensively dark above with central portion of head shorter and more narrowed anteriorly, pronotum more heavily punctured on central portion and elytral costae weaker basally.

*Larva*: Pale, largely pitchy on caudal segment and lateral processes; head with several elliptical callosities on central portion, most of them shiny and very sparsely punctured, with intervening areas depressed and remainder minutely granulose; 4 pigmented eye-spots; pronotum with transverse ridges and callosities on central portion and some irregular wrinkles at side; middle abdominal tergites each with anterior callosity narrower and shorter than posterior one; lateral processes stout basally, arched posteriorly and acute apically, last 2 larger than preceding; caudal process trapeziform, broadest at apex, with arm straight externally with a number of tubercles above and below and apex with a short stout external tooth and with a much longer internal tooth; emargination nearly twice as broad as deep, convex at center of base and with an acute median tubercle.

HOST: *Pandanus* sp.

DISTRIBUTION: NE New Guinea.

*Callistola* (*Callistola*) *swartensis* Gressitt, n. sp.      Fig. 13, c, d.

*Male*: Reddish (ochraceous in dry specimen), to bluish black: head blackish above, pale beneath; antenna bluish black, pitchy reddish on segment 2 and apex of 1; prothorax pale, pitchy black on apex, the area becoming more reddish and extending back to base of apical  $1/3$  at midline; scutellum pale; elytron pale with apical  $2/5$  pitchy black, more brownish on external margin; ventral surfaces pitchy black, pale on pro- and mesosternum.

Head with central portion distinctly broader than long, narrowed to just before apex, deeply grooved anterior to middle, and heavily punctured on all but apical portion; cephalic process  $1/4$  as long as scape; postocciput depressed, impunctate; frontoclypeus oblong, slightly raised along median line. Antenna barely  $1/3$  as long as body, feebly compressed apically; scape moderately slender, thickest at middle; segment 2 cylindrical, slightly longer than broad; 3rd  $1/2$  again as long as 2, slightly longer than 4; 4-6 decreasing slightly in length; 7 as long as 3; 8-10 shorter; 11 as long as 1; last 4 feebly striate. Prothorax  $7/8$  as long as broad, moderately convex anteriorly, with a slight swelling at anterior angle, and anterolateral angle rounded-obtuse and not projecting; sides parallel; posterolateral angle slightly projecting, with small posterior tubercle projecting farthest; disc feebly swollen, with moderately close punctures except on central api-

cal portion. Scutellum flat, subacute apically. Elytron 3× as long as head and prothorax combined, slightly widened after basal 1/8, then nearly straight to widest portion which is well behind middle; apex with a moderately rounded protruding margin; disc with punctures in regular rows, most of punctures 1/3 as wide as interspaces transversely; all of interstices slightly raised basally, and alternate interstices raised apically, more strongly so near apex. Ventral surfaces with fairly dense punctures at side of metasternum, sub-lateral portions of abdominal segments 1-3, and on 2 bands across segment 1. Legs stout; hind femur not reaching apex of segment 2. Length 6.2 mm; breadth 3.3.

Holotype, ♂ (BISHOP 2937), above Karubaka, Swart Valley, 1550 m, Neth. New Guinea, *Freycinetia*, 8 Nov. 1958, Gressitt; 5 paratypes and immature stages, same data.

Differs from *C. fordii* in being larger, more extensively black, with central portion of head trapeziform, pronotum more irregular, more heavily punctured and more parallel-sided, and with the elytron longer and more parallel-sided.

*Larva*: Pinkish with dark caudal process. Head shallowly depressed medially, with some oblique callosities in triangular area bounded by a slender groove; 5 pigmented eye-spots; pronotum finely granulose, with only a few transverse wrinkles on center; middle abdominal tergites each with transverse groove bordered by callous strip before and behind, both of which are narrower at center; lateral processes small anteriorly and quite large posteriorly, moderately slender and appearing as if segmented; caudal process slightly arched at sides, widest in middle, with arm bearing numerous teeth above and fewer beneath, and apex with a stout posteriorly projecting tooth, and a larger tooth pointing obliquely inward; emargination wider than deep, evenly rounded.

*Pupa*: Head with low blunt median process and supraocular process fairly small, tapering, slightly arched and acute; pronotum with many subtransverse striae; middle abdominal tergites with 2 long rows of fairly continuous small numerous tubercles; lateral processes broad basally with terminal portion not much longer than broad; caudal process short with arms somewhat diverging, each constricted before middle and somewhat suddenly acute apically, with emargination rather evenly rounded.

HOST: *Freycinetia*.

DISTRIBUTION: C New Guinea.

**Callistola (Callistola) fordii** Gressitt, 1957 (p. 254, f. 14a, b)

HOST: *Freycinetia* sp.

DISTRIBUTION: NE New Guinea (Bulolo; BISHOP); NE Papua.

**Callistola (Callistola) major** Gressitt, 1957 (p. 257)

HOST: *Pandanus*.

DISTRIBUTION: New Britain (Gisiluve; BISHOP).

**Callistola (Callistola) angusta** Gressitt, 1957 (p. 258, f. 15)

HOST: *Freycinetia*.

DISTRIBUTION: New Britain (Nakanai Mts.; BISHOP).

**Callistola (Callistola) tripartita** (Fairmaire), 1883 (p. 255, f. 14c-f)HOST: *Pandanus* spp.

DISTRIBUTION: Bismarck Archipelago: New Britain, Duke of York Is. (PARIS), New Ireland, Tabar I.

**Callistola (Callistola) omalleyi** Gressitt, n. sp. Fig. 14, a.

*Male*: Reddish (ochraceous in dry specimen) to blackish green: head pitchy on central portion, pale on remainder; antenna greenish black; prothorax entirely pale, darker red anteriorly; scutellum pale; elytron blackish green, slightly tinged with blue or purplish with extreme base, humeral area, and suture as far as sutural puncture-row, pale; ventral surfaces pale; legs pitchy with basal portions of femora pale and tarsi reddish brown to pitchy.

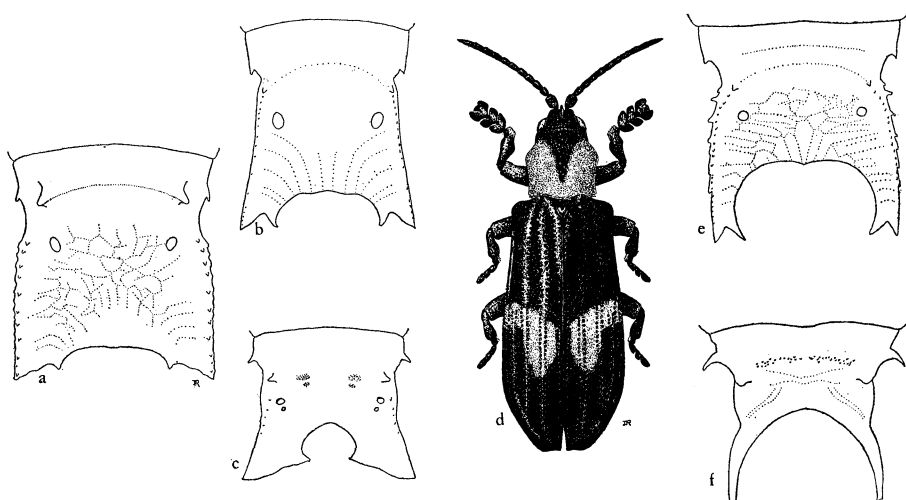


Fig. 14. a, *Callistola omalleyi* n. sp., caudal end of larva; b, *C. uhmanni* n. sp., caudal end of larva; c, same, caudal end of pupa; d, *C. montana* n. sp.; e, same, caudal end of larva; f, same, caudal end of pupa.

Head with central portion trapeziform, narrowed anteriorly to just before anterior angle which is slightly projecting, deeply grooved and finely punctured; cephalic process 1/4 as long as scape; frontoclypeus broader than long, convex and smooth. Antenna 1/3 as long as body; scape subcylindrical, widest just beyond middle; segment 2 longer than broad; 3rd 3/4 as long as scape, slightly longer than 4; 4-10 decreasing very slightly and evenly in length, except 7 as long as 4; 11 as long as 3; 2-10 striate, 2-7 punctured. Prothorax slightly broader than long, somewhat evenly narrowed from just anterior to base to anterolateral angle which is rounded-obtuse and not prominent, then slightly narrowed to apical collar; basal angle with a slight emargination and short blunt posterior tooth; disc moderately even, with a slight depression between middle and middle of side and another

between middle of side and behind a moderate swelling; punctures moderately large, close on and behind depressed areas, somewhat sparser behind apical portion and almost lacking on apex, and median and lateral raised areas. Scutellum rounded-triangular. Elytron slightly over  $2.5 \times$  as long as head and prothorax combined, slightly widened in basal  $1/2$ , widest somewhat behind middle, and apex with a prominent ectoapical rounded prominence leaving sutural angle in an emargination; disc with punctures mostly  $1/4$  as wide as interspaces transversely; all interstices somewhat raised at base and alternate ones raised throughout, strongly so near apex. Ventral surfaces moderately punctured at side of metasternum and on abdominal segments 1-4 except on bases of 1 and apices of 2-4. Hind femur reaching apical  $1/3$  of abdominal segment 2. Length 12.5 mm; breadth 4.45.

*Female*: Elytron with basal pale areas slightly more extensive and apex less prominent but distinctly emarginate near sutural angle. Length 12.6 mm; breadth 4.6.

Holotype, ♂ (BISHOP 2938), Lorengau, 70 m, Manus Island, Admiralty Is., in large ornamental *Pandanus*, 28 June 1959, Gressitt and P. Herman; allotype ♀ and numerous paratypes and immature stages, same data; additional, Rossun, 150 m, Manus, 30 June 1959, Gressitt.

Differs from *C. tripartita* in having prothorax pale, more even and less punctate and elytron more extensively dark and more produced at apex and from *C. uhmanni* in similar color differences, much less punctured prothorax and elytral apex more produced posteriorly.

*Larva*: Head relatively narrow, deeply grooved medially and with fine oblique grooves between depression and antenna, remainder minutely granulose; 5 pigmented eye-spots; pronotum rather strongly wrinkled, transversely so across middle and irregular on remainder; middle abdominal tergites with 2 narrow transverse callosities separated by groove; lateral processes extremely short, shortest in central portion where they are broader than long; caudal process with a raised subbasal ridge and with arms separated by very shallow emargination with a tooth on each side barely closer to apex than to middle of emargination; outer side of arm nearly straight, projecting slightly outward at apical tooth, subregularly toothed above and below.

*Pupa*: Head with cephalic process broader than long, blunt and emarginate apically and supraocular process represented by blunt tubercle; middle antennal segments serrate; pronotum transversely striate, with some low anterolateral swellings; middle abdominal tergites each with 2 long transverse rows of numerous small tubercles, the anterior row more broadly interrupted at middle and  $1/3$  distance from middle to side; lateral processes extremely short anteriorly, last 3 slightly longer than broad; caudal process with arms fairly short, divergent and evenly tapering in apical  $1/2$ , blunt apically; emargination even, much broader than deep.

HOST: *Pandanus*.

DISTRIBUTION: Admiralty Is. (Manus).

*Callistola* (*Callistola*) *uhmanni* Gressitt, n. sp.      Fig. 14, b, c.

*Male*: Reddish (testaceous in dry specimen) to greenish black: head blackish above except on middle of occiput, pale beneath; antenna black, slightly pitchy red distally; pro-

thorax pitchy black, slightly reddish along median line; scutellum pitchy black; elytron pale on anterior 1/3, greenish black on remainder; ventral surfaces pale except for black sides of thorax, including only metepisternum on metathorax.

Head with central portion trapeziform, much broader than long, median line anteriorly ridged and continuous with cephalic process, grooved posteriorly, mostly punctured except on apex; postocciput punctured only near anterior margin; frontoclypeus transverse, convex and transversely grooved, depressed below cephalic process which is 1/5 as long as scape. Antenna more than 1/3 as long as body; scape subcylindrical, thickest near middle; segment 2 subcylindrical, barely longer than broad; 3 nearly as long as 1, nearly 1/2 again as long as 4; 4-6 decreasing slightly in length; 7 longer than 4, subequal to 8-10; 11 nearly as long as 1. Prothorax slightly longer than broad, strongly rounded anteriorly; anterolateral angle weakly obtuse, hardly projecting; sides straight and slightly narrowing towards basal angle, which is emarginate and acutely toothed behind; disc unevenly convex with rather dense, even, fairly small punctures, with some small impunctate areas on center, between center and side, and middle of apex, some minute punctures on anterior portion. Scutellum narrow, rounded behind. Elytron 2.5× as long as head and prothorax combined, slightly widened between points just behind humerus and just anterior to middle, then more strongly widened and widest well behind middle; apex strongly and arcuately produced ectoapically, then barely emarginate and not produced at sutural angle; disc with regular punctures mostly barely 1/3 as wide as interspaces transversely except just external to middle; interstices all feebly raised basally, alternate ones becoming distinctly raised from well anterior to middle and strongly raised apically, but none quite reaching apical margin. Ventral surfaces with scattered small punctures on side of metasternum, much of abdominal sternites 1-3 and side of 4. Legs moderately stout; hind femur reaching middle of abdominal sternite 2. Length 16.6 mm; breadth 5.

*Female*: With elytral apex feebly produced. Length 14.7 mm; breadth 4.4.

*Paratypes*: Length 12-14 mm; breadth 3.8-4.6.

Holotype, ♂ (BISHOP 2939), Kampong Landbouw, 25 m, Biak I., Neth. New Guinea, *Pandanus*, 21 Oct. 1957, Gressitt; allotype, 5 paratypes and immature stages, same data; additional paratypes 29 May 1959.

Differs from *C. tripartita* in having head and pronotum much more closely and heavily punctured, the pronotum more evenly convex, and the elytral apex much broader besides having elytral dark area nearly twice as extensive. Dedicated to Erich Uhmann, well-known authority on hispine beetles.

*Biology*: All stages feed at the bases of new leaves of large *Pandanus*.

*Larva*: Evenly elliptical, quite narrow at base of last abdominal segment. Head shallowly grooved medially with an oblique groove towards antenna, otherwise smooth or finely granulose, 5 black eye-spots; setae shorter than antenna. Pronotum transversely or irregularly wrinkled. Middle abdominal tergites with a narrow transverse callosity divided by longitudinal creases; spiracles obliquely oval; lateral processes short and suddenly tapering, increasing very slightly in size from mesothorax to abdominal segment 8; caudal process strongly widened to apex with short large teeth above and below on outer side and apex suddenly acute, inner tooth strong but well separated from, and not as long as, apex.

*Pupa*: Head smooth above, with supraocular process flattened above, bent downward, and acuminate; middle antennal segments tuberculate beneath; pronotum with transverse ridges; middle abdominal tergites each with 2 nearly complete rows of tubercles on central portion; lateral processes similar to those of larva; caudal process with arms very broad, wider than emargination, oblique and broadened apically.

HOST: *Pandanus*.

DISTRIBUTION: Biak I.

***Callistola* (*Callistola*) *montana* Gressitt, n. sp.      Fig. 14, d-f.**

*Male*: Steely blue to black and testaceous (reddish in life): head black above, dark pale on frontoclypeus and underside of neck; antenna bluish black; prothorax pale with apical margin and long apical triangle extending backwards with apex slightly behind center; scutellum black; elytron steely blue with large submedian spot consisting of a pale band extending subobliquely across disc and posteriorly parallel to suture, and extreme apex dark reddish. Ventral surfaces black, pale on prosternum and sides of abdomen; legs black, slightly bluish on tarsi.

Head somewhat narrower than prothorax, widest at neck; central portion trapeziform, broader than long, grooved in center and finely punctured posteriorly; interantennal process subacute, 1/4 as long as scape; frontoclypeus trapeziform, concave opposite mouthparts, convex on center. Antenna just over 1/3 as long as body, moderately slender; scape widened internally, less than twice as long as segment 2; 3 nearly as long as 1, slightly longer than 4; 4-10 subequal; 11 longest; 8-11 longitudinally striate. Prothorax as long as broad, slightly widened anteriorly to anterolateral angle which is rounded obtuse and not projecting; anterior margin strongly convex; posterolateral angle somewhat squarish but with a small emargination followed by a slender tooth as viewed from above; disc subregularly convex, slightly more raised along an area 1/2 way between middle and side; surface with irregularly scattered deep punctures which are much sparser on pigmented portions. Scutellum longer than broad, acute apically, depressed at center. Elytron somewhat evenly broadened from just behind humerus to well behind middle, narrowed and rounded-truncate apically with a very slight emargination near sutural angle; disc with regular rows of very small punctures with alternate interstices raised for entire length except on anterior portion of side, the ridges not quite reaching apex. Ventral surfaces almost impunctate on central portions of prosternum, metasternum and last 2 abdominal sternites, moderately punctured on remainder except for sides, also, of last 2 sternites. Legs relatively slender; hind femur almost reaching apex of abdominal segment 2. Length 15.5 mm; breadth 4.95.

Holotype, ♂ (BISHOP 2940), Aiyuop, 1530 m, SE of Mendi, Southern Highlands, N Papua, 7 Oct. 1958, in large *Pandanus*, Gressitt; allotype, ♀ and many paratypes, and immature stages, same data.

Differs from *C. pulchra* in being narrower and slightly smaller, with the dark area on pronotum extending backward well behind middle, and the pale band of elytron extending farther backward and bending away from suture, and in having the pronotum with sparser and heavier punctures and the elytron with narrower ridges and with apical margin less expanded.



*Larva*: Moderately broad and deep-bodied. Testaceous with dark spiracles and brown markings on sides of caudal process. Head finely wrinkled with anterior arcuate fine grooves and 3 distinct grooves radiating forward from near base; antenna stout; setae short; eyes small and widely separated. Pronotum about 3× as broad as long, irregularly wrinkled with small callosities. Abdominal tergites each with 2 long slender transverse callosities; lateral processes small, tapering, subequal, directed backward. Caudal process stout, with arms diverging almost to apices, each with regular stout teeth above and below, with apex straight and inner tooth curved, and larger and more acute than outer tooth; emargination wider than deep, with a weak convexity at middle bearing a small process.

*Pupa*: Head feebly ridged, with supraocular process long, broadly lanceolate, flattened above; pronotum transversely ridged with longitudinal creases posteriorly; central abdominal tergites with 2 transverse rows of small tubercles, 1st widely interrupted and 2nd continuous except at median line; lateral processes short, curved, acute; caudal process with arms widely divergent, slender and blunt and narrowly emarginate apically. Length 18 mm; breadth 6.5.

HOST: *Pandanus* (large).

DISTRIBUTION: N Papua.

***Callistola* (*Callistola*) *pulchra* Gressitt, 1957 (p. 249, f. 12a-d)**

HOST: *Pandanus*.

DISTRIBUTION: NE New Guinea (Huon Pen.; BISHOP).

***Callistola* (*Callistola*) *bella* Gressitt, n. sp. Fig. 15, a**

*Male*: Reddish (testaceous in dry specimen) to purplish blue: head bluish black above, pale beneath; antenna bluish black; prothorax pale with apex blackish; scutellum pale; elytron steely blue on basal 4/5, varying to purplish and green with apex reddish; ventral surfaces pale; legs pitchy with femora pale on basal 3/4.

Head with central portion trapeziform, narrowed anteriorly, with a deep median depression anterior to middle, and remainder heavily punctured except near apex; cephalic process 1/3 as long as scape; frontoclypeus broad, slightly wider near mouthparts and feebly convex. Antenna less than 1/3 as long as body; scape swollen beyond middle; segment 2 longer than broad, subcylindrical; 3 not as long as scape, as long as 11, longer than 4; 4-10 subequal; 11 nearly as long as 1; 7-11 partly striate. Prothorax as long as broad, strongly rounded anteriorly; anterolateral process rounded-obtuse, feebly protruding; side barely concave and slightly narrowing towards base; basal angle feebly emarginate and briefly toothed behind; disc evenly convex, moderately punctured near base and behind apex as well as between middle and side, nearly impunctate on central portion and minutely punctured apically. Scutellum narrow, rounded-acute apically. Elytron 3× as long as head and prothorax combined, gradually widened from behind humerus to behind middle, more strongly widened behind middle; apex with a moderately rounded protuberance not far from sutural angle, which thus lies in emargination; disc with punctures mostly 1/2 as large as interspaces transversely; alternate interstices raised throughout, more

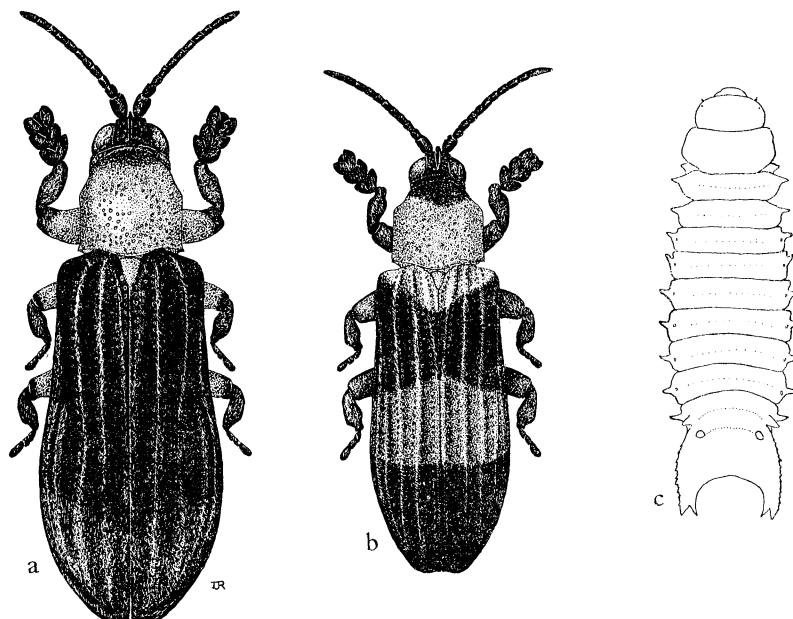


Fig. 15. a, *Callistola bella* n. sp.; b, *C. zonalis* n. sp.; c, *C. maai* n. sp., larva.

strongly so posteriorly. Ventral surfaces with only a few punctures at side of metasternum, middle of abdominal segment 1 and parts of sides of 2-4. Hind femur not reaching to apex of abdominal segment 2. Length 12.3 mm; breadth 4.

Holotype, ♂ (BISHOP 2941), Wanuma, 750 m, Adelbert Mts., Madang District, NE New Guinea, *Freycinetia*, 28 Oct. 1958, Gressitt.

Differs from *zonalis* in being larger and broader with stouter antenna and less punctured on center of pronotum, and from *maai* in having the prothorax longer and much less punctured and the elytron broader and more finely punctured.

*Larva*: Slender, slightly broader at middle. Head evenly rounded at side, grooved medially, with oblique grooves and callosities from near base towards eyes and antenna, remainder finely granulose; 5 apparent eye-spots not pigmented; pronotum with only a few transverse wrinkles across central portion and remainder granulose; middle abdominal tergites each with central transverse groove broadest near side and bordered with narrow longitudinally creased callosity; lateral processes uniform, extending outward, mostly 3× as long as broad; caudal process longer than broad, slightly arcuate at side, widest behind middle with arm bearing many slender tubercles above and below and terminating in a short, posteriorly directed external tooth and a much larger subtransverse inner tooth; emargination distinctly broader than deep, subevenly rounded. (It is possible that this larva belongs to *C. zonalis* instead of this species. Both were taken on the same hosts at the same locality.)

HOST: *Freycinetia*.

DISTRIBUTION: NE New Guinea.

**Callistola (Callistola) zonalis** Gressitt n. sp. Fig. 15, b.

*Male*: Reddish ochraceous, banded with steel blue; head greenish black above, pale on frontoclypeus and underside of neck; antenna black, bluish on segments 3–11; prothorax ochraceous, a blackish area on apical portion extending obtusely backward nearly to base of apical 1/3; scutellum pale; elytron steely to purplish blue with extreme base, obliquely to suture at end of basal 1/7, pale, and a broad pale band occupying approximately middle 1/3 of remainder, the latter band narrowed toward side; ventral surfaces pale, marked with pitchy on abdominal segment 5 and apices of 3 and 4; legs black with coxae and bases of femora pale.

Head with central portion slightly broader than long, slightly narrowed apically, grooved medially, punctured basally and smooth and convex apically; process about 1/3 as long as scape; frontoclypeus 1/2 as broad as long, convex. Antenna shiny, slightly compressed; scape slightly thickened apically; twice as long as segment 2; 3 much longer than 2, slightly longer than 4; 4–6 subequal; 7 longer than 3; 8–10 each subequal to 3; 11 as long as 7. Prothorax with sides nearly straight, anterolateral angle rounded, not prominent, and posterolateral angle finely incised with a small sharp projecting tooth behind; disc evenly convex, heavily, but not very densely, punctured. Scutellum subelongate, acute. Elytron not quite 3× as long as head and prothorax combined, gradually widened from basal 1/6 to near apical 1/4; apex distinctly and arcuately produced not far from sutural angle, leaving sutural apex in an emargination; disc with all interstices raised basally and alternate ones raised throughout and more strongly so towards apex; and punctures mostly just over 1/2 as wide as interspaces transversely. Ventral surfaces smooth with large punctures at side of metasternum and middle of side of each abdominal sternite. Hind femur not reaching apex of sternite 2. Length 10.3 mm; breadth 2.85.

Holotype, ♂ (BISHOP 2942), Wanuma, 900 m, Adelbert Mts., Madang Distr., NE New Guinea, in medium-sized *Freycinetia* crown, 26 Oct. 1958, Gressitt; larva, same data.

Differs from *C. speciosa fasciata* in being smaller, less parallel-sided, with pronotum more even, less punctate along middle, and with elytron more narrowed in middle and with interstices all raised basally.

HOST: *Freycinetia*.

DISTRIBUTION: NE New Guinea (Adelbert Mts.).

**Callistola (Callistola) maai** Gressitt, n. sp. Fig. 15, c.

*Male*: Reddish (testaceous in dry specimen) to purplish and greenish black: head bluish black above, pale beneath; antenna greenish black, partly pitchy basally; prothorax pale with only middle of extreme apex pitchy; scutellum pale; elytron largely metallic, purplish anteriorly and greenish posteriorly, pale on basal 1/4 of suture, extreme base, part of humerus and basal 1/5 of external margin, reddish pitchy on apical declivity; ventral surfaces pale, slightly pitchy on some of the punctures; legs pitchy with femora pale.

Head with central portion nearly as long as broad, slightly narrowed anteriorly, deeply grooved medially, densely punctured on basal 2/3 and with a sinuate groove near outer margin to apex; cephalic process barely 1/3 as long as scape; frontoclypeus slightly longer

than broad, feebly convex medially and near side. Antenna less than  $1/3$  as long as body; scape stout, heavily punctured, broadest in middle; antennal segment 2 subcylindrical, slightly longer than broad; 3 nearly longer than 1, distinctly longer than 4; 4-10 subequal; 11 barely longer than 10; 3-11 striate. Prothorax nearly as long as broad, strongly rounded apically; anterolateral process obtusely rounded, hardly produced; side nearly straight, slightly narrowed near basal angle, shallowly emarginate and with a small posterior tooth; disc subevenly convex, densely punctured at side and near base, very sparsely punctured in center and finely and more sparsely punctured towards apex. Scutellum rounded-triangular, obtuse apically, finely striate. Elytron not quite  $3\times$  as long as head and prothorax combined, gradually widened from end of basal  $1/7$  to well behind middle; apex moderately convex ectoapically then subemarginate-truncate; disc with most of punctures not quite  $1/2$  as wide as interspaces transversely; alternate interstices distinctly raised throughout, more strongly near apex. Ventral surfaces with deep, moderately sparse punctures on side of metasternum, central portions of abdominal sternites 1-2 and middle of side of 3-4. Legs moderately stout; hind femur reaching to middle of abdominal segment 2. Length 10.5 mm; breadth 3.3.

*Female*: Elytral apex not quite as prominent ectoapically as in ♂.

*Paratypes*: Length 9.5-11 mm; breadth 3.4-4.

Holotype, ♂ (BISHOP 2943), Bodem, 10 m, near Sarmi, W of Hollandia, Neth. New Guinea, in *Pandanus*, 5 July 1959, T. C. Maa; allotype ♀ and 7 paratypes and immature stages, same data.

Differs from *dilutipes* in being shorter and broader posteriorly with central portion of head less narrowed anteriorly, 2nd antennal segment shorter, prothorax more parallel-sided and less regularly punctured and elytral apex much less produced besides being more extensively metallic.

*Larva*: Slender-elliptical; head broadly grooved medially, with a fine arcuate groove between eyes and antenna and remainder minutely punctured or smooth; pronotum punctured or transversely wrinkled; middle abdominal tergites with 2 narrow transverse smooth strips separated by a groove and partly crossed by longitudinal wrinkles; lateral processes short and strongly tapering, last slightly larger than 1st; caudal process with arms arcuate externally with many small teeth above and below on outer side and arm terminating in 2 acute subequal teeth.

HOST: *Pandanus*.

DISTRIBUTION: N New Guinea (Sarmi).

***Callistola* (*Callistola*) *pandanella* Gressitt, n. sp.**

Bright pinkish red (ochraceous in dry specimen) to metallic bluish black: head black above tinged with greenish, pale beneath; antenna blackish on scape, reddish to pitchy on remainder; prothorax greenish black above and at side; scutellum pitchy; elytron red, with a broad bluish black band with greenish or purplish reflections occupying posterior  $2/5$  except for extreme apex; ventral surfaces pale on anterior sternites to middle of metasternum, pitchy to black on remainder; legs reddish pitchy on tarsi, largely pitchy on tibiae and black on femora except for basal  $2/3$  of 1st and base of 2nd. Body glabrous

except for a small area of pubescence on frontoclypeus adjacent to labrum, besides hairs on legs.

Head distinctly narrower than prothorax; central portion trapeziform, narrowed anteriorly, as long as broad, grooved medially and partly grooved near side with remainder deeply and irregularly punctured; frontoclypeus suboblong, feebly convex and slightly irregular; interantennal process almost obsolete. Antenna just over  $1/3$  as long as body; scape convex internally, about twice as long as segment 2; 3 slightly longer than 2, nearly as long as 4; 5 slightly longer than 4; 6 equals 4; 7 as long as 1, slightly longer than 8; 8-10 increasing slightly in length; 11 longest. Prothorax slightly broader than long, feebly sinuate at side with anterolateral margin evenly rounded to anterior angle; anterior margin strongly convex; posterolateral angle slightly produced and bearing a small acute tooth; disc uneven, raised along median line, depressed on each side just behind center and again before and behind middle of lateral portion, impressed with close heavy punctures which become sparser near anterior margin. Scutellum longer than broad, narrowed and rounded apically. Elytron  $3\times$  as long as head and prothorax combined, parallel for basal  $1/8$ , subregularly widened to somewhat behind middle, evenly narrowed and rounded apically; disc with regular rows of fairly deep punctures with all interstices raised anteriorly and alternate interstices, only, raised posteriorly, none of them quite reaching apical margin. Ventral surfaces shiny, minutely and sparsely punctured except for groups of larger punctures on sides of sternites except last abdominal sternite. Legs stout; hind femur not quite reaching apex of segment 2. Length 7.95 mm; breadth 2.75.

Holotype, probably ♀ (BISHOP 2944), Bomberi, 800 m, center of Bomberai Pen., near Fak Fak, SW Vogelkop, on small *Pandanus*, 7 June 1959, Gressitt; 6 paratypes and immature stages, same data, Gressitt and Maa.

Differs from *C. diluipes* in being much smaller with pronotum much more heavily punctured and more uneven, and in having elytra more broadened posteriorly and more expanded on apical margin.

*Larva*: Caudal process long, slightly broadened distally, but widest before apex; arm slightly convex on outer side, finely toothed above and below, with apex bearing a short, straight, subacute outer tooth, and a long, curved, acuminate inward directed inner tooth; emargination slightly wider than deep, even except for a small obtuse tooth at middle. (Immature larva; not correlated for certain).

HOST: *Pandanus* sp. (very small plants in jungle stream).

DISTRIBUTION: Vogelkop.

#### Subgenus *Freycinetivora* Gressitt

***Callistola* (*Freycinetivora*) *varicolor* Gressitt, 1957 (p. 262, f. 17)**

HOST: *Freycinetia*.

DISTRIBUTION: Solomon Is. (Bougainville; BISHOP).

***Callistola* (*Freycinetivora*) *masoni* Gressitt, n. sp. Fig. 16, a, b.**

*Male*: Reddish (ochraceous in dry specimen) to shiny black: head blackish above, slightly reddish anteriorly and beneath; antenna bluish black; prothorax pale except for

extreme apex; scutellum pale; elytron shiny black, slightly pitchy on parts of external margin and dull reddish apically; ventral surfaces pitchy, tinged with reddish at bases and apices of most of sternites; legs black tinged with reddish, paler on coxae and base of fore femur.

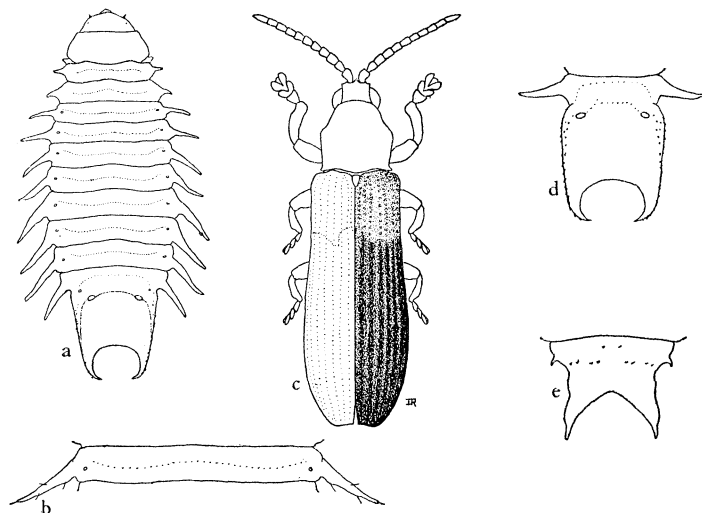


Fig. 16. a, *Callistolla (F.) masoni* n. sp., larva; b, same, middle abdominal tergite; c, *C. (F.) dimidiata* n. sp.; d, same, caudal end of larva; e, same, caudal end of pupa.

Head with central portion nearly twice as broad as long, grooved medially and at side, swollen and strongly punctured on central portion of each side; postocciput deeply grooved anteriorly; interantennal spaces nearly flat; frontoclypeus narrowed towards mouth-parts, convex medially. Antenna not quite  $\frac{1}{3}$  as long as body; scape stout, widest in middle; segment 2 slightly longer than broad,  $\frac{2}{3}$  as long as 3; 3-10 subequal; 11 shorter than 1. Prothorax as long as broad, strongly rounded anteriorly; anterolateral angle evenly rounded, hardly prominent; side slightly convex and narrowed toward basal angle which is slightly prominent and acutely toothed; disc evenly and feebly convex, densely and deeply punctured except at apex. Scutellum narrow, subacute apically. Elytron nearly  $3\times$  as long as head and prothorax combined, somewhat evenly widened from end of basal  $\frac{1}{5}$ , widest near beginning of apical  $\frac{1}{4}$ ; apex rounded and moderately prominent ectoapically, then barely emarginate; disc with most punctures just over  $\frac{1}{2}$  as wide as interspaces transversely; interstices all raised basally, alternate ones much more strongly raised posteriorly, somewhat scabrous near apex. Ventral surfaces largely minutely punctured with some scattered large punctures at side of metasternum and for progressively lesser portions of sides of abdominal sternites 1-4. Legs moderately slender, heavily punctured; hind femur reaching just beyond middle of abdominal sternite 2. Length 7.9 mm; breadth 2.65.

Holotype, ♂ (BISHOP 2945), Munda, 25 m, New Georgia I., in large *Freycinetia*, 14

July 1959, Gressitt; 2 paratypes and immature stages, same data.

Differs from *C. varicolor* in being smaller, largely black, with the prothorax less angulate and more evenly convex at side and with disc more even and much more evenly punctured and in having the elytral interstices alternately raised in central portion. Named for Mr. R. Mason, chief of the Dept. of Agriculture, British Solomon Islands Protectorate, as a slight token of gratitude for many kindnesses extended me on field trips.

*Biology*: Larvae and adults feed at the bases of new leaves on the terminal crowns of medium-sized *Freycinetia*.

*Larva*: Moderately broad and flattened. Head shallowly depressed on median central portion and with some cavities and grooves between median depression and antenna, remainder minutely punctured; 6 distinct black eyes; antenna much longer than setae. Pronotum finely granulose, with a few wrinkles or smooth areas on central portion. Abdominal tergites almost entirely granulose, without callosities. Lateral processes becoming gradually longer posteriorly where each is about 1/3 width of segment. Caudal process flat, slightly narrowed posteriorly, with a number of small teeth on vertical outer side of arm, and apex of arm strongly curved inward and hooked apically.

*Pupa*: Head with supraocular process flattened, oblique, suddenly acute apically; pronotum strongly ridged transversely; middle abdominal tergite with only 4 central tubercles in anterior row and more than 10 in posterior row; lateral processes quite short and blunt; caudal process with arms diverging and subevenly tapering in distal 1/2.

HOST: *Freycinetia*.

DISTRIBUTION: Solomon Is. (New Georgia I.).

***Callistola (Freycinetivora) dimidiata*** Gressitt, n. sp.      Fig. 16, c-e.

Reddish ochraceous with posterior 2/3 of elytron bluish black, becoming pitchy red on ridges and margins posteriorly; antenna reddish basally and at extreme apex and pitchy black on remainder. Body glabrous except for erect pale hairs on frontoclypeus, besides pubescence on tibiae and tarsi.

Head about twice as broad as long; central portion oblong, 2/3 as broad as long; interantennal process lacking and with a small tooth at inner side of each antennal insertion when viewed from above; dorsal surface finely grooved medially and near side, convex and deeply punctured on remainder; postocciput constricted anteriorly and smooth; frontoclypeus nearly twice as long as broad, convex medially, broadened anteriorly. Antenna less than 1/3 as long as body; scape swollen internally, coarsely punctured; 2nd segment 2/3 as long as 1; 3 nearly as long as 1; 4-6 equal, each barely longer than 2; 7-10 subequal, each about as long as 3; 11 slightly longer than 3. Prothorax slightly longer than broad, slightly broadened anteriorly to anterolateral angle which is rounded obtuse, then oblique to side of anterior margin which is strongly convex; posterolateral angle slightly produced and with a minute acute tooth; disc nearly flat above, rather densely punctured except on apical portion and just behind center. Scutellum longer than broad, narrowed and subacute apically. Elytron not quite 3 × as long as head and prothorax combined, parallel in basal 1/5 and gradually broadened in posterior 2/3, rounded and slightly produced apically so that conjointly sutural angles are at middle of an

arcuate emargination; disc with fairly small punctures in regular rows which posteriorly are more widely separated than diameters of punctures, the pairs being separated by raised alternate interstices of which the 1st ridge reaches external margin. Ventral surfaces largely smooth, with larger punctures on sides of sternites, but almost no large ones on last abdominal sternite. Legs moderately stout; hind femur not reaching apical 1/4 of abdominal segment 2. Length 8.35 mm; breadth 2.35.

Holotype (BISHOP 2946), Kwalo, 350 m, above Tangtalau, N Malaita, Solomon Is. *Freycinetia*, 30 Sept. 1957, Gressitt; 12 paratypes: 6 E of Kwalo, 350 m, 29 Sept. 1957 and 6 between Andalimu and Ngarafata (SW Fiu River), 1-10 m, 19 Sept. 1957, all on *Freycinetia*, with immature stages.

Differs from *C. varicolor* in having the coloration uniform with anterior 2/5 of elytron pale and without pale stripes, the central portion of head much broader and prothorax more weakly obtuse at side with anterior portion produced farther forward, and disc with larger punctures.

*Biology*: All stages live in the base of crowns of terminal heads of *Freycinetia*, feeding on the bases of the new leaves.

*Larva*: Moderately compressed. Head finely granulose above with some oblique lines and callosities in central portion, with 6 small black eyes behind antenna. Pronotum finely punctured. Lateral processes long and gradually tapering, 1st 2 about 1/2 as long as last few. Caudal process broad, evenly emarginate, somewhat narrowed posteriorly with arm tapered, recurved and acute, and with numerous small acute tubercles on outer side.

*Pupa*: With a somewhat hooked process on each side of head, which is somewhat flattened in middle and acute apically. Pronotum rather flat above and somewhat transversely grooved. Lateral processes fairly short, the last one quite small; abdominal tergites in central portion with 2 transverse rows of small tubercles. Caudal process deeply emarginate with arm irregularly narrowed, slightly broadened near middle, acute apically.

HOST: *Freycinetia*.

DISTRIBUTION: Solomon Is. (Malaita).

***Callistola (Freycinetivora) freycinetiae* Gressitt, 1957 (p. 260, f. 16)**

HOST: *Freycinetia*.

DISTRIBUTION: Solomon Is. (Guadalcanal).

***Callistola (Freycinetivora) wrighti* Gressitt, n. sp. Fig. 17, a, b.**

*Female*: Bright red (reddish ochraceous in dry specimen) to pitchy black: head entirely pale; antenna red on 1st 2 segments, pitchy black on remainder; prothorax and scutellum pale; elytron with broad pitchy black band just behind middle, not reaching external margin, extending forward along suture to end of basal 1/5 and somewhat more oblique and more pitchy on posterior margin, apical portion darker red than basal portion; ventral surfaces and legs pale.

Head with central portion nearly twice as broad as long, oblong, grooved medially



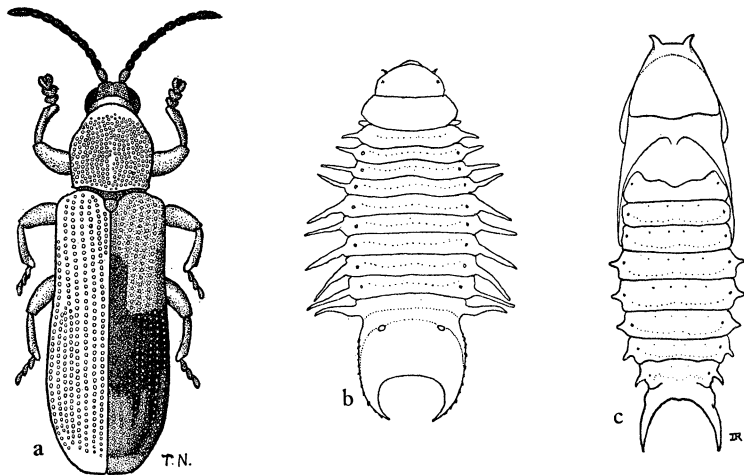


Fig. 17. a, *Callistola* (*F.*) *wrighti* n. sp.; b, same, larva; c, *C.* (*F.*) sp., pupa, New Georgia.

and at side, convex and deeply punctured between; interantennal area emarginate but finely ridged within emargination; postocciput transversely grooved anteriorly; frontoclypeus broadly oblong, widened toward antennal insertions, slightly convex. Antenna  $1/3$  as long as body, distinctly compressed distally; scape stout, short, convex internally; segment 2 subcylindrical, a little longer than broad; 3 longer than 2; 4 = 2, 6; 5 nearly as long as 3; 7 = 3, 8-10; 11 as long as 1, flattened and sharp apically. Prothorax slightly longer than broad, strongly convex anteriorly; anterolateral angle evenly rounded, not protruding; side nearly straight, slightly sinuate, slightly narrowed toward basal angle, which has a slight emargination before a prominent acute tooth on posterior edge; disc feebly convex, slightly raised along median line and at a spot midway between center and side, with both these areas and apex sparsely punctured, the remainder closely punctured. Scutellum narrowed and obtusely angulate apically. Elytron  $2 \frac{1}{3} \times$  as long as head and prothorax combined, slightly broadened after basal  $1/6$ , more strongly broadened behind middle and widest at start of apical  $1/4$ ; apex rounded, extending farther backward at middle than at sutural angles, and slightly emarginate between; disc with punctures in part nearly as wide as interspaces transversely; all interstices raised at base, and alternate ones raised posteriorly. Ventral surfaces with sides sparsely punctured and somewhat wrinkled. Legs with hind femur not reaching apex of abdominal sternite 2. Length 6.6 mm; breadth 1.75.

Holotype, ♀ (BISHOP 2947), behind Kukundu, 10 m, SW Kolombangara I., New Georgia Group, Solomon Is., in a small *Freycinetia*, 8 July 1959, Gressitt; paratype and immature stages, same data.

Differs from *C. freycinetae* in being much smaller, with central portion of head shorter, vertex more emarginate, pronotum more finely and more closely punctured, and elytron more finely and deeply punctured posteriorly. Named for Mr. W. Wright, District Commissioner, Western Solomons, as a token of gratitude for many kindnesses.

*Larva*: Fairly broad and flat, with long processes. Head depressed medially, oblique-

ly striate and callous, finely granulose; 3 distinct round black eye-spots and 3 vague smaller brown ones; setae mostly much shorter than antenna; pronotum minutely reticulate, with a few oblique wrinkles at each side of center; middle abdominal tergites each with a simple transverse groove; lateral processes short and slender on thorax, gradually longer on abdomen to last 2, which are subequal and much longer than head; caudal process broad and flattened, with arm bearing a number of distinct teeth on upper margin, and rather evenly tapered and arched inward to the acute apex.

HOST: *Freycinetia* (small species).

DISTRIBUTION: Solomon Is. (Kolombangara).

#### Genus *Isopedhispa* Spaeth, 1936

##### *Isopedhispa cocotis* (Maulik), 1933

HOST: *Cocos nucifera*.

DISTRIBUTION: New Caledonia (BM).

##### *Isopedhispa ferruginea* Spaeth, 1936

DISTRIBUTION: New Caledonia (Mt. Panie; BM).

#### Genus *Torquispa* Uhmman, 1954

##### *Torquispa vittigera* Uhmman, 1954

DISTRIBUTION: New Caledonia (BRUXELLES).

##### *Torquispa caledoniae* Uhmman, 1954

DISTRIBUTION: New Caledonia (Ouvrail; BRUXELLES).

### TRIBE COELAENOMENODERINI

#### Genus *Cyperispa* Gressitt, 1957

#### KEY TO ADULTS

1. Posterolateral portion of pronotum with a large depression; elytron largely pale with a dark transverse band ..... 2
- Posterolateral portion of pronotum with 2 depressions separated by a ridge; elytron and basal 1/2 of pronotum black ..... **hypolytri**
2. Prothorax longer than broad, widest near anterior end; elytron with a narrow dark band well behind middle ..... 3
- Prothorax no longer than broad, widest near middle; elytron with a broad sub-central band which projects forward along suture ..... **thoracostachyi**
3. Pronotum with some punctures on central portion and median line carinate behind middle; dark band not prolonged posteriorly along suture..... **scleriae scleriae**

Pronotum almost impunctate on central portion and median line not carinate behind middle; dark band prolonged posteriorly along suture..... *scleriae malaitensis*

KEY TO LARVAE

1. Lobes of abdominal segment 8 considerably exceeding segment 9 posteriorly; prothorax almost circular in outline ..... 2
- Lobes of abdominal segment 8 not extending farther posteriorly than apex of segment 9; prothorax not almost circular in outline..... *scleriae*
2. Pronotum obliquely striate; lobes of abdominal segment 8 bent outward apically ..... *hypolytri*
- Pronotum arcuately striate; lobes of abdominal segment 8 extending straight backwards ..... *thoracostachyi*

*Cyperispa hypolytri* Gressitt, 1957 (p. 268, f. 19 a, c, d, e)

HOST: *Hypolytrum* (sedge).

DISTRIBUTION: Solomons Is. (Guadalcanal; BISHOP).

*Cyperispa thoracostachyi* Gressitt, n. sp.      Fig. 18, a-c.

Reddish (ochraceous in dry specimen); elytron with a broad pitchy brown central band which extends forward along suture to end of basal 1/4; antenna slightly duller brown on segments 3-10. Body thinly and briefly clothed with pale hairs which are extremely scarce on most of elytral disc, and lacking on central and posterior portions of pronotal disc; antenna with pitchy hairs on segments 3-10 and dense golden pubescence on 11.

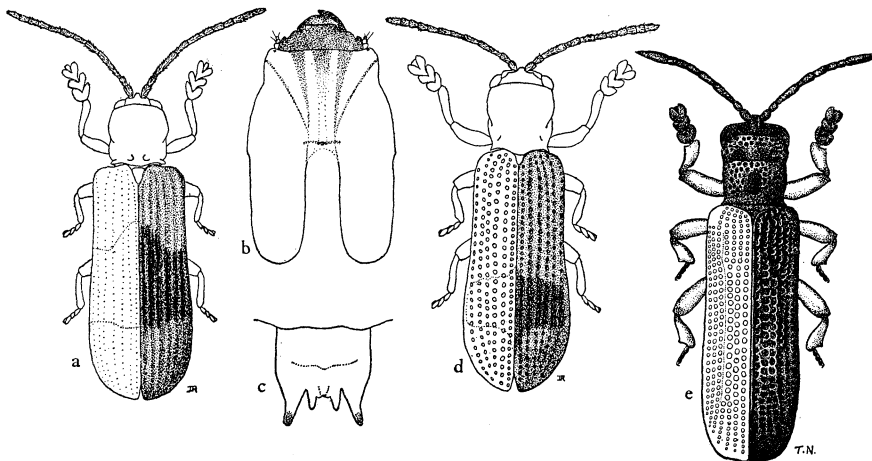


Fig. 18. a, *Cyperispa thoracostachyi* n. sp.; b, same, head capsule of larva; c, same, caudal end of larva; d, *C. scleriae malaitensis* n. subsp.; e, *Enischnispa rattana* n. sp.

Head not quite as broad as prothorax, very short; vertex bluntly raised above antennal insertion, depressed on each side; occiput shiny and largely impunctate; frontoclypeus short, emarginate apically, transversely grooved across middle. Antenna not quite  $1/2$  as long as body; scape swollen above, slightly larger than segment 2; 3rd  $1/2$  again as long as 1 + 2, twice as long as 4; 4-7 decreasing slightly in length; 8-10 subequal, much shorter; 11 slightly longer than 4. Prothorax nearly as long as broad, somewhat sinuate laterally, widest at anterior and posterior ends of middle  $1/3$  and slightly narrowed between; anterior margin evenly convex; basal margin sinuate with basal angle protruding but adpressed against depression on base of elytron; disc rather strongly punctured on depressed anterior portion but with a fine raised median line; central portion convex and with just a few punctures; posterolateral area depressed, 2 deeper punctured areas, one near base and other near side. Scutellum longer than broad, minutely punctured. Elytron parallel in basal  $1/4$ , gradually widened to middle then subparallel and broadly round apically; disc with deep regular punctures with alternate interstices more strongly raised. Ventral surfaces shiny, very sparsely and minutely punctured. Legs fairly slender; hind femur reaching beyond abdominal segment 2. Length 6.6 mm; breadth 2.25.

Holotype (BISHOP 2948), Auki, Malaita, Solomon Is., 2 m, on *Thoracostachyum* sedge, 2 Oct. 1957, Gressitt; 2 paratypes and immature stages, same data.

Differs from *C. hypolytri* in being slightly broader, much paler with only elytral band dark, with pronotum less deeply punctured in posterolateral depression which is only feebly divided in two parts, and with elytral punctures slightly smaller and less closely spaced.

*Biology*: The larva mines within the leaves of large sedges and pupation takes place in the extreme base of the mine which is at the base of the long leaves, often at or below the surface of the water of swamps.

*Larva*: Pale testaceous, darker on anterior portion of head. Head capsule nearly twice as long as broad, deeply and narrowly emarginate behind, rather smooth above and subtransverse on anterior margin. Pronotum deeply emarginate anteriorly, extending forward at side to slightly behind eyes; nearly twice as broad as middle of body. Lateral processes obtuse, like blunt lobes, 7th pair subacute, 8th segment with lobes directed posteriorly and slightly exceeding inner pair of slender caudal lobes.

*Pupa*: With scattered groups of fine hairs on sides of head and thorax and isolated ones on sides of abdomen; pronotum strongly raised on anterior portion and depressed on posterolateral portion; abdominal tergites with transverse areas of minute tubercles; caudal segment subtransverse behind with 3 pairs of short obtuse lobes.

HOST: *Thoracostachyum* (sedge).

DISTRIBUTION: Solomon Is. (Malaita).

*Cyperispa scleriae scleriae* Gressitt, 1957 (p. 271, f. 19 b, f, g, h)

HOST: *Scleria* (sedge).

DISTRIBUTION: Solomon Is. (Guadalcanal; BISHOP).

*Cyperispa scleriae malaitensis* Gressitt, n. subsp. Fig. 18, d.

Pale ochraceous (ochraceous in dried specimen), a pitchy black band crossing elytron

just before apical 1/4, the band not reaching external margin but continued narrowly along suture almost to apex; antenna dull brown, ochraceous on 1st few segments and reddish distally on most of last segment; mandibles black. Body moderately clothed with fine sparse pale pubescence, rather scarce on most of elytral disc and rather dense on anterior depressed portion of pronotum; antenna with fairly dense pitchy hairs on segments 3-10 and pale hairs on last segment.

Head slightly broader than prothorax, quite short; vertex briefly and bluntly produced above antennal insertions; occiput smooth and shiny, moderately convex; postocciput moderately narrowed behind eyes; frontoclypeus about 3× as wide as long, finely punctured. Antenna nearly 1/2 as long as body, moderately thickened distally; scape widened to slightly before apex; segment 2 nearly as long as 1; 3 longer than 1, subequal to 4 and 5; 5-10 slightly decreasing in length; 11 nearly as long as 1 + 2. Prothorax slightly longer than broad, widest near apex, oblique but slightly sinuate at side; anterior angle subrounded, posterior angle slightly projecting but adpressed against elytron in normal position, bearing a single fine seta, as does anterior angle; disc raised in central portion, somewhat depressed and punctured on anterior hairy portion except on raised median line, strongly depressed obliquely on each side near base, with a few punctures here and on central portion. Scutellum narrowly trapeziform, smooth. Elytron 3× as long as head and prothorax combined, subevenly widened to near middle, then nearly parallel and very slightly widened to apical 1/5, then narrowed and rounded apically; disc regularly punctured with the interstices moderately raised, the alternate ones a little more strongly so. Ventral surfaces shiny, very feebly punctured. Legs slender; hind femur slightly exceeding abdominal sternite 2; tarsi flat and quite broad, anterior pair asymmetrical. Length 4 mm; breadth 1.05.

*Paratypes*: Length 3.95-4.2 mm; breadth 1.1-1.15.

Holotype (BISHOP 2949), Auki, 2 m, Malaita, Solomon Is., 3 Oct. 1957, small sedge, Gressitt; 4 paratypes, same data except 2 Oct.

Differs from *C. scleriae* in being slightly shorter, in having fewer punctures on pronotum, the latter less carinate at middle of posterior portion of disc, and in having the elytral band farther forward and extending posteriorly along suture.

HOST: Sedge (*Scleria* ?).

DISTRIBUTION: Solomons Is. (Malaita).

#### Genus *Heterrhachispa* Gressitt, 1957

*Heterrhachispa kurandae* Gressitt, 1957 (p. 273, f. 20a)

DISTRIBUTION: Cape York Peninsula (Kuranda; BISHOP).

#### Genus *Enischnispa* Gressitt, 1957

##### KEY TO ADULTS

Elytron with puncture-rows 3-4 complete throughout; body largely pale above... **calamivora**  
 Elytron with puncture-rows 3-4 merged in 2nd and 3rd quarters; body shiny black  
 above..... **rattana**

**Enischnispa calamivora** Gressitt, 1957 (p. 275, f. 20b, c)HOST: *Calamus* sp.

DISTRIBUTION: New Ireland (Gilingil; BISHOP).

**Enischnispa rattana** Gressitt, n. sp. Fig. 18, e.

Shiny black above with a slight pitchy reddish tinge; antenna reddish on segments 1, 2 and 11; front of head and ventral surfaces dark reddish, somewhat pitchy along sides and at apex of abdomen; legs pale; tarsi brown.

Head short, slightly broader than prothorax, deeply punctured above; cephalic process nearly 1/2 as long as scape, blunt apically, flattened above; frontoclypeus twice as broad as long, longitudinally striate. Antenna just over 2/5 as long as body; scape a little longer than broad; segment 2 slightly longer than broad; 3 slightly longer than 1 + 2, 1.65 × 4; 5 as long as 2; 5-7 equal; following segments fused, nearly 1/2 as long as preceding combined. Prothorax barely longer than broad, subcylindrical but slightly constricted anterior to middle and near base, widest well behind middle; disc deeply and irregularly punctured, with transverse raised smooth area anterior to center and a smaller similar area behind center. Scutellum small, narrowed and rounded behind. Elytron 2.5 × as long as head and prothorax combined, subparallel, but slightly broadened to apical quarter; narrowed and rounded-truncate apically; disc with 8 rows of deep punctures at middle, and 9 or 10 anteriorly and 9 preapically; 2nd interstice carinate basally and postmedially, 3rd carinate anterior to middle, and 7th (6th) strongly carinate and hiding lateral margin in dorsal view. Ventral surfaces finely and sparsely punctured, more closely so towards apex of abdomen; hind femur reaching apex of abdominal segment 2. Length 3.7 mm; breath 1.15.

Holotype (BISHOP 2950), Tamaui, 150 m, Maprik, Sepik Distr., NE New Guinea, on slender-pinnate rattan, 15 Oct. 1957, Gressitt; paratype, same data.

Differs from *E. calamivora* in being slightly larger, almost entirely shiny black instead of largely pale, with elytron somewhat unevenly costate, and with puncture-rows 3-4 merged in central portion.

HOST: Rattan with slender pinnae.

DISTRIBUTION: NE New Guinea.

Genus **Pharangispa** Maulik, 1929**Pharangispa purpureipennis** Maulik, 1929 (p. 276, f. 21a, c)

Numerous specimens with immature stages, probably of this species, Auki, 2 m, Malaita, Sept. 1957, and Munda, 20 m, New Georgia I, July 1959, Gressitt, in large gingers.

HOSTS: *Alpinia*, *Costus*.

DISTRIBUTION: Solomon Is.: Guadalcanal (BM), Malaita, Ysabel, New Georgia.

**Pharangispa fasciata** Gressitt, 1957 (p. 278, f. 21b)

DISTRIBUTION: Solomon Is. (Bougainville; BM).

**Pharangispa cristobala** Gressitt, 1957 (p. 278)

DISTRIBUTION: Solomon Is. (San Cristobal; CAS).

#### TRIBE PROMECOTHECINI

##### KEY TO GENERA

- Elytron more than 4× as long as head and prothorax combined; prothorax hardly constricted anterior to middle, subcylindrical in anterior 1/2; elytron entirely pubescent..... **Freycinetispa**
- Elytron generally about 3× as long as head and prothorax combined; prothorax constricted both before and behind middle; elytron rarely entirely pubescent... **Promecotheca**

#### Genus **Freycinetispa** Gressitt, new genus

Antenna slender and hairy with segment 3 not much longer than 1 or 4; head broader than prothorax, feebly constricted between antennal insertions; prothorax hardly broader at middle than at apex, not constricted between middle and apex, but deeply constricted between middle and base; elytron extremely long and narrow, quite hairy and with 8 regular puncture-rows, rounded oblique apically. Legs slender, but not very long, with hind femur reaching middle of abdomen and none of the femora toothed.

Generotype: *Freycinetispa collinsi* n. sp.

This new genus differs from *Promecotheca* in being more slender, with the head broader, the prothorax broader anteriorly and not constricted anterior to middle, in having the elytron extremely narrow, and hairy throughout, and in having the legs shorter.

*Biology*: The larva mines in slender, rather short mines in small species of *Freycinetia* with fairly narrow leaves. The area of pupation is somewhat central in the mine and generally has a series of small deposits of black excreta on each side.

Mines, probably all of this genus, have been seen on Guadalcanal, Rendova, New Georgia, Kolombangara, and near Lae on the mainland of New Guinea. The only adults found were reared on Kolombangara and Rendova.

The pupa of this genus has the head quite smooth, the antenna simple, the pronotum fairly even, feebly striate transversely, raised slightly on each side near apex, obliquely depressed behind middle, middle abdominal tergites with 4 tubercles anteriorly and 2 behind on central portion, and last abdominal segment rounded at center of apex, slightly lobed at each side and with 2 rows of minute tubercles on upper surface, the 2nd row well before apex.

**Freycinetispa collinsi** Gressitt, n. sp.      Fig. 19.

Pale reddish brown, slightly paler on abdomen and legs; antenna blackish with segments 1-2 pale and 3 pitchy basally. Body largely clothed with short suboblique pale hairs, which are largely lacking on pronotum and upper surface of head.

Head distinctly broader than prothorax, smooth above, somewhat raised between eyes, feeb-

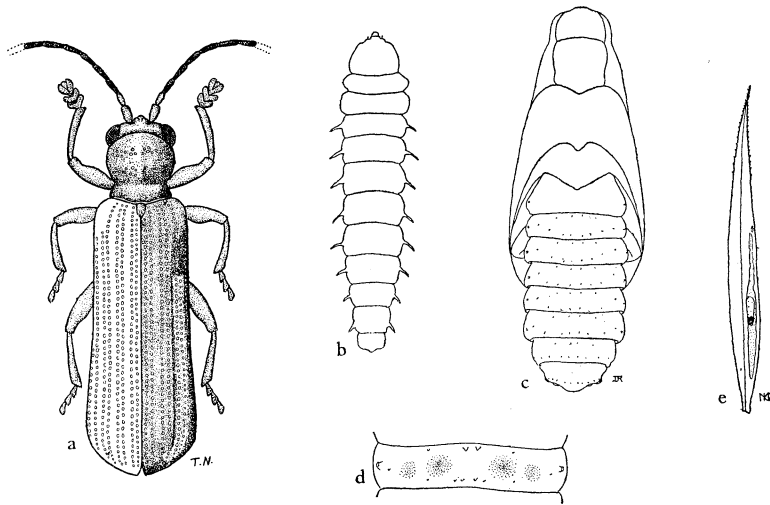


Fig. 19. a, *Freycinetispa collinsi* n. sp.; b, same, larva; c, *F. sp.*, pupa; d, same, middle abdominal tergite; e, same, larval mine, with pupal cell and emergence hole in center, *Freycinetia* leaf.

ly swollen between antennal insertions; frontoclypeus about  $3\times$  as broad as long with median raised portion continuous with interantennal swelling. Antenna about  $2/3$  as long as body; scape more than twice as long as broad, slender basally and swollen in middle; segment 2 twice as long as broad, 3 slightly shorter than 1+2, slightly longer than 4; 4-6 decreasing slightly in length; 6-8 subequal (last 3 missing); antennal hairs somewhat adpressed. Prothorax slightly longer than broad, widest at middle which is broadly rounded, evenly narrowed from middle to apex, deeply constricted and grooved between middle and base; disc with a few widely scattered deep punctures, mostly just behind middle and in an incomplete transverse band just anterior to middle. Scutellum narrow, subrounded apically. Elytron well over  $3\times$  as long as head and prothorax combined, very narrow, slightly constricted anterior to middle and broadest not far from apex, which is obliquely rounded; disc with 8 regular rows of punctures which are wider than interspaces; alternate interstices distinctly raised throughout, outermost ridge most distinct. Ventral surfaces with a few weak punctures at side and on basal portions of abdominal segment 2-5 and apex of 5. Legs slender; hind femur not reaching middle of abdominal segment 3. Length 3.4 mm; breadth 1.2.

Holotype (BISHOP 2951), inland from Kukundu, 200 m, Kolombangara I., New Georgia Group, Solomon Is., in small *Freycinetia*, 9 July 1959, Gressitt.

Differs from *Promecotheca salomonina* in being much more slender, with longer, more pubescent elytron. Named for Mr. A. Collins, Agricultural Officer, Western Solomons, as a slight token of gratitude for extensive kindness during my visit in the New Georgia group.

*Larva*: Very pale; tapering posteriorly; moderately flat. Head capsule narrowly subtrapeziform, widest posteriorly, slightly convex at side, deeply emarginate, with side of emargination convex, and posterior arms very widely separated posteriorly; anterior margin weakly convex; antenna long and slender. Pronotum subrounded, slightly broader



than long, feebly pigmented, very smooth, finely granulose near anterior margin, which is produced forward on central portion; meso- and metathorax broader than prothorax, obtusely rounded at sides. Abdomen with middle tergites smooth, with a slight transverse crease and swelling near side, but almost entirely finely granulose; lateral processes extremely slender, similar, each  $2/3-3/4$  as long as length of respective segment, and all 8 directed obliquely backwards; caudal segment somewhat transversely oblong, and weakly 3-lobed apically, with median lobe more strongly produced and rounded.

HOST: *Freycinetia*.

DISTRIBUTION: Solomon Is. (Kolombangara).

### Genus *Promecotheca* Blanchard, 1853

#### KEY TO ADULTS

1. Elytral punctures in 8 fairly regular rows, at least beyond basal  $1/3$  ..... 2  
 Elytral punctures with at least 9 rows behind basal  $1/3$ , or partly in 10 or more rows ..... 11
- 2 (1). Elytron with puncture-rows arranged in pairs separated by more or less distinct costae ..... 3  
 Elytron with puncture-rows evenly spaced, lacking costae separating rows into pairs ..... 6
- 3 (2). Elytron pale along most of suture, with a postmedian sutural pale area which is continuous with pale base ..... 4  
 Elytron dark along central portion of suture, at least; posterior pale area, if present, not continuous with pale basal area ..... 5
- 4 (3). Elytron with lateral dark area nearly touching suture at middle, covering external margin, apical  $1/9$ , and reaching midline postmedially ..... *leveri leveri*  
 Elytron with lateral dark area not reaching 1st distal costa at middle, not covering lateral margin, covering only apical  $1/11$  at suture, and not reaching 2nd costa postmedially..... *leveri bougainvilleana*
- 5 (3). Elytron bluish black on posterior  $2/3$ ; hind femur toothed beneath; elytral costae partly weak..... *ptychospermae*  
 Elytron with a common central broad chevron-shaped purplish black mark; hind femur untoothed; costae distinct ..... *salomonina*
- 6 (2). Body length less than 7 mm ..... 7  
 Body length more than 10 mm ..... 8
- 7 (6). Prothorax pale, moderately constricted anteriorly; elytron largely purplish black, pale on margin and apex ..... *sacchari*  
 Prothorax black, feebly constricted anteriorly; elytron bright red..... *palmella*
- 8 (6). Elytron entirely pale ..... 9  
 Elytron purplish posteriorly..... 10
- 9 (8). Prothorax black, smooth; head and fore leg black ..... *callosa*  
 Prothorax pale, distinctly punctured; head and fore femur and tibia pale...  
 ..... *varipes*
- 10 (8). Antenna brown; elytron with apical  $1/5$  purplish; hind femur nearly reach-

- ing apex of abdomen ..... **pandani**  
 Antenna black; elytron with posterior 2/3 purplish; hind femur 2/3 as long  
 as abdomen ..... **freycinetiae**
- 11 (1). Elytron with only 8 puncture-rows at beginning of apical 1/3 ..... 12  
 Elytron with 9 or more puncture-rows at beginning of apical 1/3 ..... 14
- 12 (11). Elytron banded in middle, with longitudinal interstices not raised, more or  
 less transversely corrugated in part ..... 13  
 Elytron pale with dark apex, with longitudinal interstices raised, not trans-  
 versely corrugated ..... **palmivora**
- 13 (12). Punctures on elytron mostly much smaller than longitudinal interspaces, con-  
 fused, but dense in central portion; prothorax rounded at side; elytron pro-  
 duced at sutural angle, where hairs are also longer ..... **alpiniae alpiniae**  
 Punctures on elytron about as large as interspaces, sparser in central portion;  
 prothorax bluntly obtuse at side; elytron broadly rounded at apex, with  
 hairs not longer near suture..... **alpiniae robusta**
- 14 (11). Elytron entirely or almost entirely pale; prothorax and legs shiny black, or  
 body largely pubescent ..... 15  
 Elytron not more than 3/5 pale, often entirely metallic or black; legs pale,  
 or if black, prothorax is orange ..... 16
- 15 (14). Prothorax smooth, shiny black, glabrous; elytron entirely testaceous; legs black  
 ..... **straminipennis**  
 Prothorax uneven, punctured, pubescent; elytron pubescent, with apical 1/6  
 black; legs pale except for hind femur and base of hind tibia..... **pubescens**
- 16 (14). Elytron pale basally, in part subtransversely wrinkled with puncture-rows quite  
 irregular; prothorax dark ..... 17  
 Elytron entirely metallic or blackish, not very strongly wrinkled; prothorax  
 reddish or pale..... 19
- 17 (16). Elytron with about basal 1/3 pale; pronotum in part striate, microvermicu-  
 late, or punctured ..... 18  
 Elytron with basal 3/5 pale; pronotum smooth and shiny; hind legs some-  
 what darkened ..... **papuana**
- 18 (17). Elytron testaceous basally in dry specimens, purplish to greenish posteriorly;  
 tibiae pale ..... **opacicollis**  
 Elytron reddish basally, bluish posteriorly; tibiae black..... **superba**
- 19 (16). Pronotum transversely depressed on each side of center, sometimes medially  
 impressed..... 20  
 Pronotum smooth, nearly impunctate, not impressed along median line, hardly  
 impressed on side of disc; elytron metallic green, blue-green or purplish  
 lavender; prothorax and legs red ..... **violacea**
- 20 (19). Prothorax not much wider at middle than at base; legs pale ..... 21  
 Prothorax much wider at middle than at base; elytron with apical hairs long-  
 er at sutural angle; legs black ..... **kolombangara**
- 21 (20). Prothorax slightly wider at middle than at base; antenna brown; elytron pur-  
 ple; length 8.5 mm ..... **bryantiae**  
 Prothorax hardly wider at middle than at base; antenna black; elytron black

or greenish black, rarely purplish; length 7 mm..... **guadala**

#### KEY TO LARVAE

1. Head capsule distinctly widest in middle ..... 2  
 Head capsule almost as wide, or wider, posteriorly than at middle ..... 3
- 2 (1). Head capsule emarginate for more than 1/2 its length, emargination almost parallel-sided ..... **palmivora**  
 Head capsule emarginate for barely 1/2 its length, emargination V-shaped .....  
 ..... **straminipennis**
- 3 (1). Head capsule distinctly widest posteriorly or well posterior to middle ..... 4  
 Head capsule subparallel-sided posteriorly, or about as wide at middle as near apex and emarginate between..... 6
- 4 (3). Head capsule feebly expanded near middle; posterior emargination V-shaped ..... 5  
 Head capsule quite short, widest postmedially, not expanded at middle; posterior emargination broad, sinuate at side, less than 1/2 as long as capsule.....  
 ..... **alpiniae robusta**
- 5 (4). Head capsule much broader posteriorly than anteriorly, hardly narrowed between middle and anterior end, broadly emarginate behind..... **sacchari**  
 Head capsule not much broader posteriorly than anteriorly, distinctly narrowed between middle and anterior end, narrowly emarginate behind ..... **palmella**
- 6 (3). Head capsule slightly emarginate at side between middle and apex, with posterior arms almost parallel-sided ..... 7  
 Head capsule more or less straight or slightly convex at side between middle and apex, with posterior arms distinctly narrowed posteriorly..... 8
- 7 (6). Head capsule constricted midway between center and anterior end, which is not much narrower than middle ..... **papuana**  
 Head capsule constricted closer to anterior end than middle; anterior end much narrower than middle ..... **violacea**
- 8 (6). Head capsule more or less parallel-sided in anterior 1/4, not narrower at end of anterior 1/4 than near apex..... 9  
 Head capsule distinctly narrower at end of anterior 1/4 than near anterior end, subparallel-sided posteriorly, with emargination somewhat triangular... **bryantiae**
- 9 (8). Anterior margin of head capsule truncate in middle; posterior emargination wider at mouth than posterior end of arm..... **freycinetiae**  
 Anterior margin of head capsule sinuate, not transversely truncate in middle; posterior emargination no wider just inside mouth than posterior end of arm  
 ..... **guadala**

**Promecotheca leveri leveri** Spaeth, 1937 (p. 298)

DISTRIBUTION: Solomon Is. (Ysabel; BM)

**Promecotheca leveri bougainvilleana** Gressitt, 1957 (p. 298, f. 27h)

HOSTS: *Areca*, *Balaka*, *Calamus*.

DISTRIBUTION: Solomon Is. (Bougainville; BISHOP).

**Promecotheca salomonina** Spaeth, 1937 (p. 300, f. 27i)

HOSTS: *Balaka* (*Ptychosperma*), *Calamus*.

DISTRIBUTION: Solomons Is. (Guadalcanal; BM).

**Promecotheca ptychospermae** Maulik, 1935 (p. 300)

HOST: *Balaka* (*Ptychosperma*).

DISTRIBUTION: Solomon Is. (Ulawa, SE of Malaita; BM).

**Promecotheca sacchari** Gressitt, 1957 (p. 296, f. 27a-g)

HOSTS: Cultivated and wild *Saccharum* (sugarcane).

DISTRIBUTION: Solomon Is. (Guadalcanal; BISHOP).

**Promecotheca guadala** Maulik, 1932 (p. 284, f. 23a-c)

HOST: *Balaka* (*Ptychosperma*).

DISTRIBUTION: Solomon Is. (Guadalcanal; BM).

**Promecotheca kolombangara** Gressitt, 1957 (p. 286, f. 23d)

Some adults were reared from a mine in a large, broad-leafed pandan in jungle on the lower SW slopes of Kolombangara, 20 m, 11 July 1959, Gressitt.

*Pupa*: Head and pronotum fairly smooth, with some sublateral punctures, and long, fine, lateral, pale hairs; middle abdominal tergites each with a subcentral row of 4 large tubercles and a posterior row of several very small tubercles; last abdominal tergite with a large incurved spine on each side of middle and hind margin with about 5 acute spines on each side, all directed upward, and inner ones longest.

HOST: *Pandanus* (very large; broad leaves).

DISTRIBUTION: Solomon Is. (Kolombangara; BM).

**Promecotheca bryantiae** Gressitt, n. sp. Fig. 20, a, b.

*Male*: Reddish (testaceous in dry specimen) to metallic purplish; head pale except mandible; antenna pitchy, paler basally, with scape quite pale; prothorax and scutellum pale; elytron metallic purplish, narrowly pale on extreme base, anterior portion of external portion and very narrowly along basal portion of suture; ventral surfaces pale, pitchy on abdominal segments 2-4 and parts of sides of 1 and 5; legs pale, slightly brownish on tarsi. Elytron with scattered fine hairs near apex and legs with very few hairs; a few hairs around mouthparts.

Head nearly as broad as prothorax, moderately smooth, hardly swollen between antennal insertions; frontoclypeus extremely short. Antenna nearly  $2/3$  as long as body, very slightly thickened distally; scape subcylindrical, slightly thickened in middle; seg-

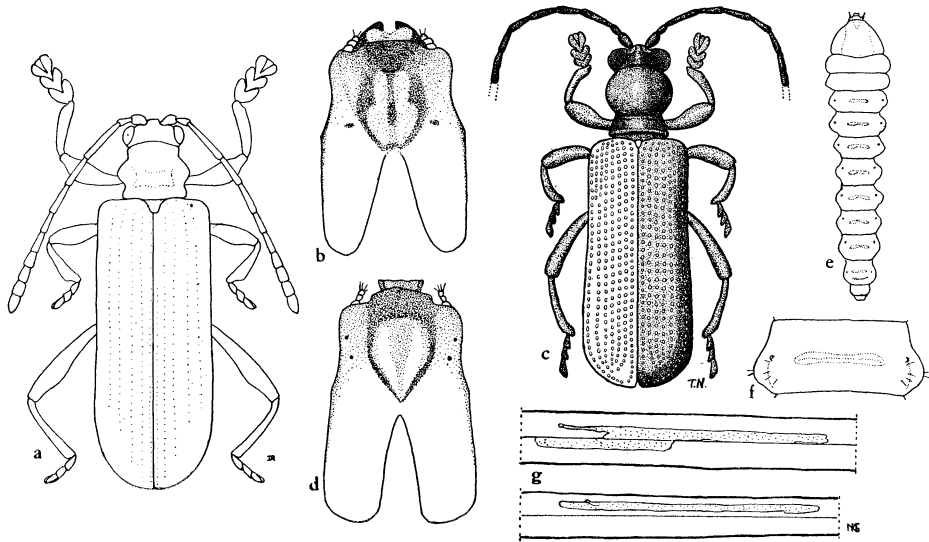


Fig. 20. a, *Promecotheca bryantiae* n. sp.; b, same, head capsule of larva; c, *P. palmella* n. sp.; d, same, head capsule of larva; e, same, larva; f, same, middle abdominal tergite, g, same larval mines in leaflets of small palm.

ment 2 distinctly longer than broad, thickened apically; 3rd  $\frac{1}{3}$  longer than 1 and 2; 4 equals 1+2; 5 slightly longer than 4, distinctly longer than 6; 7 slightly shorter than 6; 8-10 much shorter and decreasing in length; 11 slightly shorter than 7. Prothorax distinctly broader than long, strongly rounded at middle of side, constricted and grooved between middle and base and subcylindrical apically; base slightly wider than apex; disc smooth with only a few small punctures under the transverse depression between center and anterior portion of lateral swelling. Scutellum trapeziform, rounded-truncate apically. Elytron more than  $3\times$  head and prothorax combined, subparallel, very slightly narrowed to near apex, which is evenly rounded; disc with 9 rows of subregular punctures at middle and 10 before apex; interstices in part evenly convex, and on central and lateral portions somewhat transversely corrugated. Ventral surfaces almost impunctate, with fine wrinkles on parts of abdomen. Legs slender; hind femur reaching to last abdominal sternite; femora untoothed. Length 8.2 mm; breadth 2.4.

Holotype, ♂ (BISHOP 2952), Andalimu-Ngarafata (SW Fiu R.) near Auki, 1-10 m, Malaita, Solomon Is., *Pandanus* subgenus *Bryantia*, 19 Sept. 1957, Gressitt; with immature stages, same data.

Differs from *P. guadala* in being slightly larger, with elytron more purplish, less regularly punctured and more transversely corrugated.

**Biology:** The larvae mine in the sides of leaves of *Pandanus* of the subgenus *Bryantia*, with rather narrow leaves. There are at least 4 larvae per mine.

**Larva:** Head capsule broadest near middle, very deeply emarginate behind and slightly emarginate between middle and apex, rather smooth. Pronotum smooth, with anterior margin slightly emarginate in center and feebly obtuse on each side of center. Central

abdominal tergites with a feeble narrow callosity on each side of feeble transverse groove and remainder minutely reticulate.

*Pupa*: Head somewhat depressed in center, with a few rather erect hairs; pronotum somewhat transversely wrinkled, constricted near middle anterior to a subtransverse row of small tubercles bearing long hairs. Middle abdominal tergites each with a row of 4 fairly sharp tubercles followed by a row of 6 much smaller ones; caudal process arcuate, bearing about 10 slender, suberect curved spines besides one on each side near base.

HOST: *Pandanus (Bryantia)* sp.

DISTRIBUTION: Solomon Is. (Malaita).

**Promecothecha palmella** Gressitt, n. sp. Fig. 20, c-g.

*Male*: Bright red to shiny black: head pitchy black, reddish beneath and paler on mouthparts; antenna black with scape reddish; prothorax shiny black with base red; scutellum and elytron red; ventral surfaces paler reddish; legs reddish, becoming brownish ochraceous on tarsi. Antenna with moderately dense dark brown hairs starting on apex of segment 3; elytron with short pale hairs at apex and some minute ones before apex and on external margin; abdomen with a few scattered hairs and more on apex; femora with very few hairs, more on tibiae on tarsi.

Head as broad as prothorax, largely smooth and nearly impunctate, bluntly swollen between antennal insertions; frontoclypeus reduced to a chevron-like band. Antenna  $3/4$  as long as body; scape more than twice as long as broad; 2nd segment  $3\times$  as broad as long; 3 as long as  $1+2$ ,  $1/3$  longer than 4;  $4=5$ ; 6th  $4/5$  as long as 5, subequal to 7; 8th  $3/4$  as long as 7, barely longer than 9. Prothorax longer than broad, narrower at base than at middle and apex, deeply constricted between middle and base, barely constricted between middle and apex, nearly as broad just behind apex as at middle; disc evenly convex, minutely and irregularly punctured with a few larger punctures near median line. Scutellum small, rounded behind. Elytron slightly more than  $2.5\times$  as long as head and prothorax combined, subparallel, very slightly broadened to just before apex which is broadly truncate; disc with 8 rows of fairly regular large punctures which are slightly wider than interspaces longitudinally and transversely; interstices moderately raised and subregular. Ventral surfaces in part finely striate on metasternum and in part finely punctured on abdomen. Legs slender; femora without teeth; hind femur reaching nearly to apex of abdominal segment 4. Length 4.4 mm; breadth 1.4.

Holotype, ♂ (BISHOP 2953), in forest near Munda, 25 m, New Georgia I., Solomon Is. mining in small palm with slender pinnate leaflets, 19 July 1959, Gressitt; paratypes and immature stages, same data.

Differs from *solomona* in being much shorter, brighter red, unbanded, and with prothorax subcylindrical anteriorly and elytron more parallel, less oblique apically and with more regular interstices.

*Larva*: Broadest at mesothorax, narrowed posteriorly. Head capsule slightly broadened behind middle, deeply and narrowly emarginate behind, slightly constricted between middle and apex, fairly smooth; pronotum smooth and shiny, finely granulose anteriorly; abdominal tergites with a narrow callous area bordering transverse groove, which is interrupted in middle, otherwise finely reticulate; lateral processes bluntly rounded; caudal

segment with 4 feeble lobes in dorsal view.

HOST: Small pinnate palm.

DISTRIBUTION: Solomon Is. (New Georgia).

***Promecothea freycinetiae*** Gressitt, n. sp. Fig. 21.

*Male*: Reddish (ochraceous in dry specimens) to steely blue: head reddish pitchy, pale on labrum; antenna bluish black; prothorax pitchy black; scutellum black; elytron pale on slightly less than basal 1/3; bluish black on remainder; ventral surfaces pitchy to reddish; legs pale, with tarsi pitchy, bases of tibiae black to pitchy red and apical 1/4 of hind femur blackish.

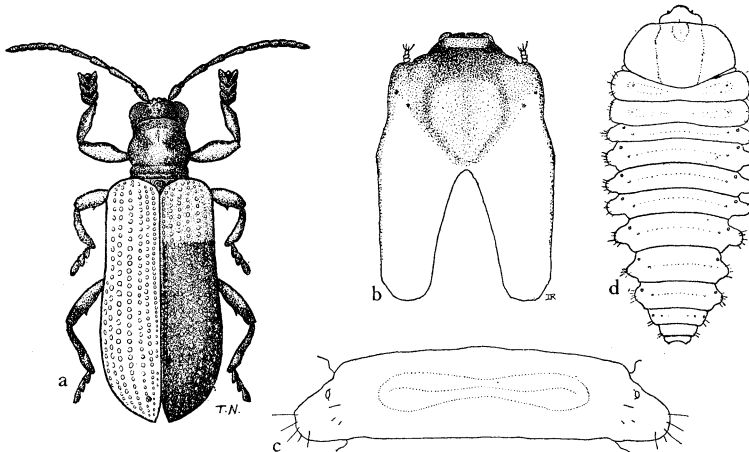


Fig. 21. a, *Promecothea freycinetiae* n. sp.; b, same, head capsule of larva; c, same, middle abdominal tergite of larva; d, same, larva.

Head nearly as broad as prothorax, swollen between eyes with a shallow median groove, and a slight median swelling between antennal insertions; frontoclypeus transverse, very short. Antenna slightly more than 1/2 as long as body; scape narrowly ovate; segment 2 slightly longer than broad, suboblique; 3 one-half again as long as 1 + 2; 4 equals 1 + 2; 5 slightly longer than 4; 6 as long as 1; 6-9 gradually decreasing in length; 10=9; 11 nearly as long as 4. Prothorax slightly broader than long, widest at middle, narrower at apex than at base, rounded-emarginate between middle and basal collar and feebly emarginate between middle and apex; disc feebly punctured, transversely impressed on each side of middle and obliquely and sinuately impressed near apex and base, and with basal collar grooved throughout; scutellum squarish apically. Elytron slightly more than 3 times as long as head and prothorax combined with 8 rows of large punctures almost throughout, the punctures mostly larger than interspaces both longitudinally and transversely and the interspaces somewhat zigzag; apical area with pale setae. Ventral surfaces largely smooth, minutely punctured, with some wrinkles and irregular area at

side of abdomen. Hind femur slender, thickening to near apex where there is a distinct ventral tooth and reaching to near sternite 4. Length 8.9 mm; breadth 3.

*Female*: Length 10.6 mm; breadth 3.85.

Holotype, ♂ (BISHOP 2954), SE of Mokmer, SE Biak I., 2 m, on large *Freycinetia*, 26 May 1959, Gressitt; allotype ♀, same data but 26 Oct. 1958; with immature stages, same data.

Differs from *P. papuana* in having the prothorax less constricted before and behind middle, flatter above and more densely punctured, and the elytron broader in middle, with much larger punctures, with fewer puncture-rows and without transverse corrugations, besides being more extensively dark.

*Larva*: Very pale, with anterior portion of head and apex of caudal process darkened. Head capsule very long, feebly obtuse at middle of side, slightly constricted between middle and anterior end; antenna with fairly long setae. Pronotum very smooth, with a few subtransverse creases and some hairs along sides; middle abdominal tergites with continuous rows of swellings on anterior and posterior margins of transverse groove and remainder finely striate around this central structure; lateral processes about as broad as long, bluntly rounded and setose apically; caudal process with a pair of suberect, conical tubercles.

*Pupa*: With head nearly smooth and sparsely setose; pronotum with a few transverse striae; middle abdominal tergites with 4 anterior and 10 posterior acute tubercles on central portion; lateral processes obtuse and setose; caudal process with arcuate apical margin bearing slightly toothed upward projecting spines.

HOST: *Freycinetia* (large species).

DISTRIBUTION: Biak I.

***Promecothea palmivora* Gressitt, n. sp. Fig. 22.**

*Male*: Orange to pitchy black: head largely pale, darker on neck; antenna orange; prothorax pitchy black, paler beneath and at middle of apex above; scutellum black; elytron reddish orange (yellow in dry specimens) pitchy brown on apical 1/5, but paler on external margin; ventral surfaces pitchy; legs pale with basal 2/3 of midfemur and all but apex of hind femur pitchy, and terminal tarsal segments partly reddish to pitchy. Elytron with erect pale hairs on apical 1/6, a few shorter ones on underside of margin; few scattered hairs on head, as well as on tibiae and tarsi.

Head slightly narrower than prothorax, impunctate, slightly raised between antennal insertions; frontoclypeus very short with a subtransverse ridge. Antenna (incomplete); scape short and stout; segment 2 distinctly longer than broad; 3 twice as long as 1+2; 4th 2/3 as long as 3; 5 barely longer than 4. Prothorax broader than long, strongly swollen at middle of side, the swelling rounded-obtuse, somewhat deeply constricted between middle and base, less strongly so between middle and apex; basal collar grooved near extreme base and oblique at side; disc feebly convex, slightly uneven, very finely and sparsely punctured, separated from basal collar by a distinct constriction. Scutellum somewhat oblong, rounded behind. Elytron 3× as long as head and prothorax combined, nearly parallel-sided with apex narrowed and somewhat unevenly rounded; disc with 10 slightly irregular rows of large deep punctures which are wider than interspaces; inter-



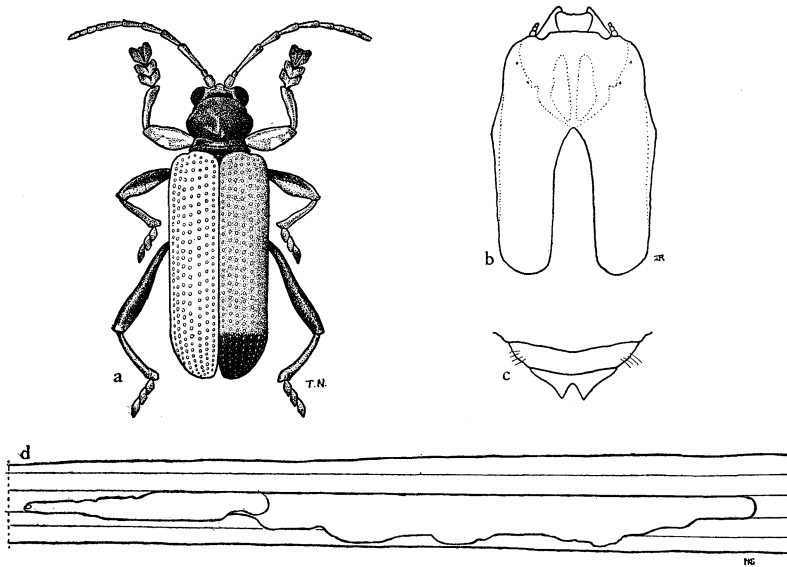


Fig. 22. a, *Promecotheca palmivora* n. sp.; b, same, head capsule of larva; c, same, caudal end of larva; d, larval mine in palm leaflet.

stices largely zigzag or irregular. Ventral surfaces very finely wrinkled on metasternum (abdomen missing). Legs moderately stout; hind femur lacking tooth, unevenly thickened to somewhat before apex, reaching near middle of pigmented portion of elytron. Length 9.7 mm; breadth 2.85.

Holotype, ♂ (BISHOP 2955), western Cyclops Mts., 450 m, near Hollandia, Neth. New Guinea, mining in leaves of an unknown palm (#3484) in shady forest, 24 June 1959, Gressitt; immature stages, same data.

Differs from *P. papuana* in having the prothorax longer, more obtusely swollen at side, and the elytron with much heavier punctures and without transverse corrugations.

*Larva*: Head capsule fairly long, subparallel posteriorly and slightly constricted between middle and apex; pronotum slightly pigmented, finely and sparsely punctured; middle abdominal tergites with transverse groove divided in middle and bordered with continuous swellings; lateral processes oblique, much broader than long, evenly rounded and bearing several long setae; caudal process with a pair of fairly close, somewhat upward directed acute teeth.

*Pupa*: Pronotum smooth, with a few transverse striae and submarginal setae; middle abdominal tergites with 4 stout anterior and 8 or 10 small posterior tubercles on each; lateral processes very short, obtuse; caudal process feebly arcuate, with 4 recurved hooks on each side and 10 slightly upcurved spines on serrate apical margin.

HOST: Unknown thick-leaved palm.

DISTRIBUTION: N New Guinea.

**Promecotheca papuana** Csiki, 1900 (p. 287, f. 24, pl. 15, f. f)HOSTS: *Cocos nucifera*, *Nypa fruticans*, *Metroxylon sagu*, *Areca cathecu*, *Elaeis*.

DISTRIBUTION: NE New Guinea, Manus, New Britain.

**Promecotheca opacicollis** Gestro, 1897 (p. 290)HOST: *Cocos nucifera*.

DISTRIBUTION: Santa Cruz Is., Banks Is., New Hebrides.

**Promecotheca superba** Pic, 1924

DISTRIBUTION: Australia (?; PARIS).

**Promecotheca violacea** Uhmann, 1932 (p. 281, f. 22)Several were reared from mines in medium-sized and narrow-leaved *Pandanus* at Munda, 25 m, New Georgia I., 15 July 1959, Gressitt.HOST: *Pandanus* spp.

DISTRIBUTION: W Solomon Is. (Bougainville, ZMB; Ysabel; New Georgia).

**Promecotheca pandani** Gressitt, n. sp. Fig. 23, a.

*Male*: Orange (ochraceous in dry specimen) to shiny bluish black: head largely blackish, partly paler in front and below; antenna pale; prothorax black, slightly tinged with blue, slightly pitchy reddish apically; scutellum black; elytron pale on basal 5/6, bluish black apically; ventral surfaces black, slightly tinged with pitchy reddish; legs reddish, pitchy on basal 4/5 of hind femur. Elytron with some moderate pale hairs on extreme apex and a few shorter hairs before apex; abdomen moderately hairy at apex and along middle with a few shorter hairs at side; legs moderately hairy beneath.

Head slightly narrower than prothorax, largely smooth and impunctate, moderately raised between eyes. Antenna about 1/2 as long as body; scape slightly arcuate, twice as long as segment 2; 3rd  $1\frac{1}{2}$  × as long as 1 + 2, 1/3 longer than 4; 4 = 5; 6 equals 1 + 2; 6–10 decreasing slightly in length; 11 slightly longer than 10. Prothorax slightly broader than long, strongly rounded-obtuse at middle, deeply constricted between middle and base and feebly constricted between middle and apex; basal collar transversely grooved, with anterior portion higher but not as broad at side as posterior portion; disc subevenly convex, finely punctured, most densely so on each side of median line. Scutellum subsquarish, rounded-truncate behind. Elytron 3 × as long as head and prothorax combined, nearly parallel-sided, but with humeri somewhat projecting; apex subevenly rounded but subobtusely projecting at sutural angle; disc with 8 regular rows of punctures which are slightly larger than interspaces. Ventral surfaces shiny and minutely punctured with some irregular wrinkles on side of abdomen and heavier punctures on setose areas. Legs slender; middle and hind femora toothed preapically; hind femur nearly reaching apex of abdomen; hind tibia distinctly sinuate. Length 11.8 mm; breadth 3.3.

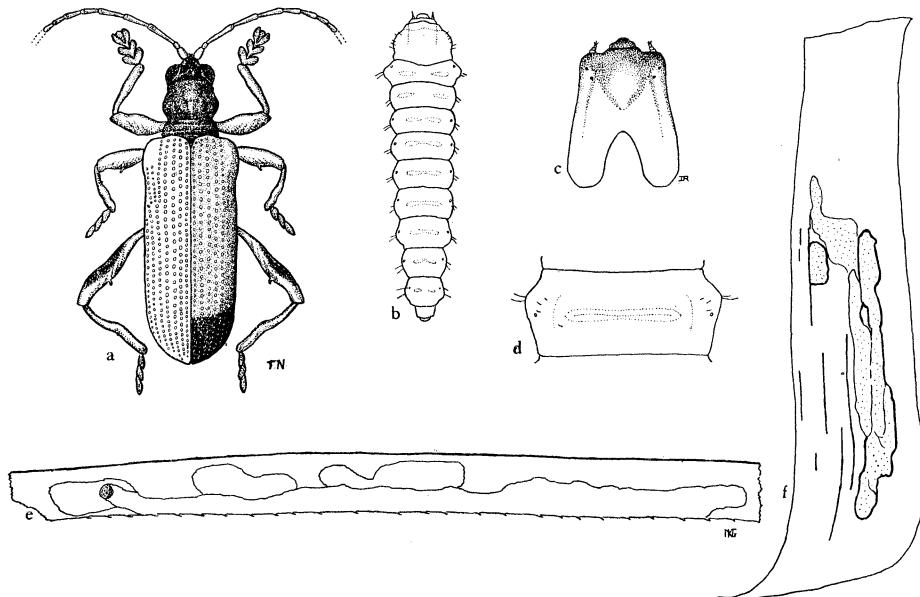


Fig. 23. a, *Promecotheca pandani* n. sp.; b, *P. alpiniae robusta* Gressitt, larva; c, same, head capsule of larva; d, same, middle abdominal tergite; e, larval mine of *P. pandani* or *straminipennis*, *Pandanus* leaf; f, *P. alpiniae robusta*, larval mine and adult feeding, part of *Heliconia* leaf.

Holotype, ♂ (BISHOP 2956), Wanuma, 900 m, Adelbert Mts., Madang Distr., NE New Guinea, mining in large cultivated *Pandanus*, 23 Oct. 1958, Gressitt, paratype ♂, same data.

Differs from *P. straminipennis* in having the prothorax much less constricted between middle and apex and less punctured on disc and the elytron with 8 regular rows of punctures, besides having antenna and legs pale and elytral apex black.

HOST: *Pandanus* (cultivated).

DISTRIBUTION: NE New Guinea.

***Promecotheca straminipennis* Weise, 1922 (p. 291, f. 25 a-d)**

Many were collected at Wanuma, 750–1000 m, Adelbert Mts., on cultivated pandan, 24 Oct. 1958, Gressitt; and Lorengau, Manus, 1–75 m, on large branching pandan, 27 June 1959, Gressitt. New to Manus and New Guinea.

HOST: *Pandanus* spp.

DISTRIBUTION: New Britain (STOCKHOLM), Manus, New Guinea.

***Promecotheca callosa* Baly, 1876 (p. 292)**

DISTRIBUTION: Australia (Northern Terr., BM; Cape York Pen.); S New Guinea.

**Promecotheca varipes** Baly, 1858 (p. 293)HOST: *Pandanus*.

DISTRIBUTION: Australia (Northern Terr.; BM).

**Promecotheca pubescens** Gressitt, 1957 (p. 293, f. 25e)

DISTRIBUTION: N New Guinea (Maffin Bay; CAS).

**Promecotheca alpiniae alpiniae** Maulik, 1929HOST: *Alpinia*.

DISTRIBUTION: Solomon Is. (Malaita; BM).

**Promecotheca alpiniae robusta** Gressitt, 1957 (p. 294, f. 26). Fig. 23, b-d, f.

In the figure cited, the antenna is mistakenly shown as having 10 segments, and the dark and pale portions of the elytron are reversed.

Numerous specimens, and larvae, were taken at Munda, 25 m, New Georgia I., on large *Heliconia*, 15 July 1959, Gressitt.

*Larva*: Very pale, with anterior end of head pigmented. Head capsule narrow anteriorly, widest near posterior end, subparallel in part of posterior 1/2, with 2 distinct black spots obliquely placed and in line with anterolateral corner of capsule; posterior emargination sinuate at side, fairly wide behind. Pronotum smooth and shiny, slightly pigmented, feebly wrinkled in part, with distinct anterior collar which is finely granulose; mesothorax wider than pro- and metathorax. Middle abdominal tergites each with a transverse crease bordered with a dull granulose band, and remainder reticulate; lateral processes evenly rounded, each with a few long hairs; last segment blunt apically, with a pair of small terminal lobes, but no tubercles.

HOST: *Heliconia*.

DISTRIBUTION: Solomon Is. (Vella Lavella, CAS; New Georgia).

## TRIBE GONOPHORINI

## KEY TO GENERA

- Pronotum somewhat evenly convex, with minor irregularities; elytron generally depressed at side behind humerus ..... **Aspidispa**  
 Pronotum strongly swollen, generally deeply impressed at side of hind portion of disc; lateral prothoracic margin prominent, more or less serrate and widened anterior to middle..... **Gonophora**

Genus **Aspidispa** Baly, 1869

## KEY TO ADULTS

1. Body subelongate, parallel-sided ..... 2  
 Body fairly broad, feebly convex in outline at side, slightly broadened anteriorly  
 or posteriorly..... 3
2. Rather narrow; pronotum closely punctured; a median line and oblique costa on each  
 side, shiny; dorsum black; tibiae and tarsi largely blackish..... **meijerei**  
 Suboblong, flattened; pronotum sparsely punctured; dorsum testaceous on basal 2/3  
 of elytral disc, pitchy on remainder; tibiae testaceous; fore tarsus slightly brown-  
 ish..... **nigritarsis**
3. Elytron broadest posteriorly or near middle..... 4  
 Elytron broadest anteriorly ..... 5
4. Pronotum with some deep punctures on central portion of disc; elytron with lateral  
 margin narrow, discal costae low and regular except for post-humeral interrup-  
 tion on 3rd costa; elytron reddish; 4.25 mm ..... **horvathi**  
 Pronotum impunctate on central portion of disc; elytron with lateral margin fairly  
 broad, discal costae not very low, somewhat uneven, with both 2nd and 3rd in  
 part depressed or interrupted; elytron dark reddish pitchy posteriorly; 5.3 mm...  
 ..... **albertisi**
5. Pronotum widest barely before middle, finely punctured except on median strip;  
 posthumeral depression strong; reddish brown with side of pronotum and parts  
 of costae yellowish ..... **expansa**  
 Pronotum widest well anterior to middle, coarsely punctured almost throughout;  
 posthumeral depression not very deep; bright red with posterior 2/5 of elytron  
 blackish ..... **palmella**

**Aspidispa meijerei** (Weise), 1908

DISTRIBUTION: N New Guinea (Cyclops Mts.; ZMB).

**Aspidispa nigritarsis** Gestro, 1890 (p. 303, f. 28 a)

DISTRIBUTION: Papua (Fly R.; GENOVA).

**Aspidispa horvathi** Gestro, 1897 (p. 303, pl. 15, f. g)

DISTRIBUTION: NE New Guinea (Huon Pen.; BUDAPEST).

**Aspidispa albertisi** Gestro, 1890

DISTRIBUTION: Papua (Fly R.; GENOVA).

**Aspidispa expansa** Gressitt, 1957 (p. 304, f. 28 b)

DISTRIBUTION: NE New Guinea (Wareo, Huon Pen.; SAM).

**Aspidispa palmella** Gressitt, n. sp.      Fig. 24, a, b.

Bright shiny red, with apical 2/5 of elytral disc (narrowing towards margin) pitchy

black; antenna pitchy with blackish subadpressed hairs in distal 2/3; ventral surfaces paler red, pitchy on margins of abdomen; legs slightly paler. Body glabrous above except on antenna; with scattered short pale hairs beneath, mostly on frontoclypeus, borders of abdominal sternites, and legs.

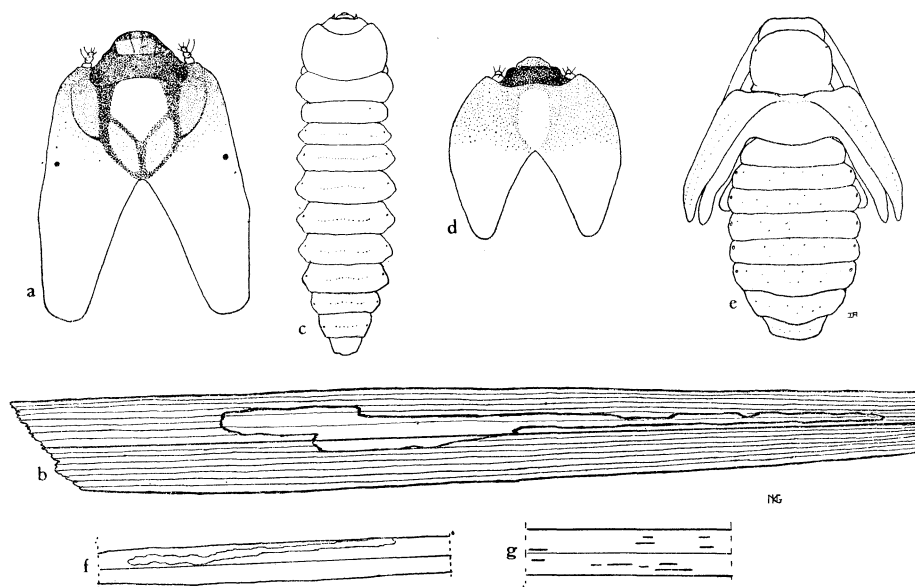


Fig. 24. a, *Aspidispa palmella* n. sp., head capsule of larva; b, same, larval mine in palm leaflet; c, *Micrispa cyperaceae* n. sp., larva; d, same, head capsule of larva; e, same, pupa; f, same, larval mine in sedge leaf; g, same, adult feeding marks on sedge leaf.

Head distinctly narrower than prothorax, smooth above with fine, sparse punctures; cephalic process short, subacute,  $1/4$  as long as scape; frontoclypeus broadly crescentic. Antenna not quite  $1/2$  as long as body; scape a little longer than broad; segment 2 slightly smaller than 1; 3 longer than 1, subequal to 4; 4-10 subequal in length, gradually slightly thicker; 11 longest. Prothorax  $2/3$  as long as broad, widest  $1/3$  from apex, subevenly arcuate and finely dentate at side; disc evenly convex on central portion, deeply and irregularly punctured, depressed along middle of base and at side near anterior margin and above middle. Scutellum rounded-triangular, finely punctured. Elytron broadest at end of basal  $1/4$ , evenly rounded externally and minutely toothed apically; disc with 8 rows of deep punctures, in paired rows, but some of punctures, particularly on sutural  $1/2$ , appear double or compound; alternate interstices strongly raised, except for outermost which is depressed at end of basal  $1/4$ ; transverse interstices mostly somewhat raised. Ventral surfaces finely punctured around borders. Hind femur reaching apex of abdominal sternite 2. Length 5 mm; breadth 2.2.

*Paratype*: Length 4.7 mm; breadth 2.05.

Holotype (BISHOP 2957), behind Kotanika (Kota Nica), 80 m, SE foothills of Cyclops Mts., near Lake Sentani, Netherlands New Guinea, on small palm (3061), 17 Oct.

1957, Gressitt; 5 paratypes, W Cyclops Mts., 250 m, on small palm (#3479), 18-24 June 1959, with larva, Gressitt; 1 paratype, Maprik, 150 m, Sepik Distr., NE New Guinea, on small palm, 15 Oct. 1957, Gressitt.

Differs from *A. albertisi* in having pronotum more heavily punctured, elytron with more regular ridges and posthumeral depression shallow, and in being largely bright red with apical dark area.

*Biology*: The larvae make short broad mines in the leaves of certain small palms with irregularly placed, narrow and thin truncate leaflets. The adults feed for the most part on the upper surfaces of the same leaflets. Thus they differ from many of the local mining hispines, which mostly feed on the lower surfaces of the leaves, and from the non-miners which mostly feed hidden in the bases of crowns or within still-folded leaflets.

*Larva*: Pale testaceous, ochraceous on pronotum. Head capsule 1/3 longer than broad, broadest posteriorly, broadly and triangularly emarginate, smooth and hardly punctured; borders somewhat pigmented, nearly black anteriorly and with a central oval reddish outline with a Y-shaped mark in center. Pronotum smooth and shiny, very feebly wrinkled or transversely striate, finely punctured anterior to a triangular raised area just behind middle of apex; middle abdominal tergites each with a slightly sinuous transverse granulate depression across center; lateral processes rounded, slightly broader than long; last segment rounded at middle of apex and with just a few setae.

HOST: Small palm with pinnae irregularly arranged.

DISTRIBUTION: N New Guinea.

### Genus *Gonophora* Baly, 1858

#### Subgenus *Micrispa* Gestro, 1897

##### KEY TO ADULTS

1. Elytron with a shallow or moderately deep depression externally behind middle... 2  
Elytron with a deep depression externally behind middle; body pitchy, antenna testaceous with last segment black; prothoracic disc brownish; elytron black with apical margin and some discal spots testaceous; ventral surfaces and legs reddish yellow; tarsi black; length 2.8 mm..... **vulnerata**
- 2 (1). Elytron with 23-25 punctures in sutural row; prothorax with side rather gradually expanded anteriorly, disc entirely heavily punctured..... 3  
Elytron with 15-18 punctures in sutural row; prothorax often rather suddenly expanded anteriorly, disc only partly heavily punctured ..... 4
- 3 (2). Second elytral costa moderately straight posteriorly; third costa fairly regular, interpunctural areas largely pitchy black; prothoracic margin sinuate and slightly dentate..... **alpiniae**  
Second elytral costa strongly sinuate, leaving a wide space between 2nd and 3rd costae just behind middle, 3rd costa irregular, interpunctural areas largely dull brown; prothoracic margin nearly straight on basal 2/3, rather even and not distinctly dentate..... **sinuicosta**
- 4 (2). Second elytral costa distinctly sinuate posteriorly, in part depressed ..... 5

- Second elytral costa nearly straight posteriorly, complete and even; 3rd costa curved somewhat outward behind middle; 18 punctures in sutural row; testaceous, feebly marked with pitchy on last antennal segment, 1st elytral costa before middle, and 2nd costa just behind middle; length 3.7 mm ..... **majuscula**
- 5 (4). Central less heavily punctured portion of pronotum not very shiny, preceded anteriorly by more than 1 row of large punctures; not entirely pale..... 6  
Central less heavily punctured portion of pronotum shiny, occupying fully middle 1/3 of length of pronotum, preceded anteriorly by a single transverse row of large punctures; 2nd elytral costa nearly obliterated beside postmedian depression; entirely pale..... **pellucida**
- 6 (5). Side of prothorax strongly sinuate; 2nd elytral costa hardly interrupted by postmedian depression..... **costi**  
Side of prothorax feebly sinuate; 2nd elytral costa completely depressed in area of postmedian depression; elytron with 3 black bands ..... **cyperaceae**

**Gonophora (Micrispa) vulnerata** Gestro, 1894

DISTRIBUTION: Papua (Moroka; GENOVA).

**Gonophora (Micrispa) alpiniae** Gressitt, 1957 (p. 307, f. 29a)

HOST: *Alpinia*.

DISTRIBUTION: Papua (Kokoda; BISHOP).

**Gonophora (Micrispa) sinuicosta** Gressitt, 1957 (p. 309, f. 29b)

DISTRIBUTION: N New Guinea (Cyclops ?; CAS).

**Gonophora (Micrispa) majuscula** Gestro, 1907 (p. 309, pl. 15, f. h)

DISTRIBUTION: NE New Guinea (Friedrich-Wilhelmshafen; BUDAPEST).

**Gonophora (Micrispa) pellucida** Gressitt, 1957 (p. 310, f. 29c)

DISTRIBUTION: N New Guinea (Maffin Bay; CAS).

**Gonophora (Micrispa) costi** Gressitt, 1957 (p. 310, f. 29d, e)

HOSTS: *Costus* (larva and adult); *Alpinia* (adults).

DISTRIBUTION: New Britain (Warongoi Valley; BISHOP); New Ireland.

**Gonophora (Micrispa) cyperaceae** Gressitt, n. sp.      Fig. 24, c-g.

Testaceous to pitchy black. Head pitchy; antenna pale brown, pitchy on last few segments; prothorax and scutellum black; elytron pale, blackish on extreme base, along outermost puncture-row, on ectoapical angle, apical declivity, and an incomplete oblique band just behind end of basal 1/4 and broken on 2nd costa, and a broader subtransverse band somewhat behind middle and broadened to occupy all of postmedian depression; suture dark at base and apex and reddish to pitchy in between; ventral surfaces pitchy black; legs pitchy brown, pale on hind femur and most of hind tibia.



Head distinctly narrower than prothorax, smooth and microgranulose above; frontoclypeus with a raised triangle which continues above at apex as a small subangular interantennal process. Antenna  $1/3$  as long as body; scape short, thickened apically; segment 2 longer than broad, subcylindrical; 3 as long as 1, one-half again as long as 4; 4 equals 5; 6-10 shorter, subequal in length but gradually slightly stouter; 11 as long as 3. Prothorax distinctly broader than long, widest near apex; side parallel for a short distance then slightly narrowed towards basal angle which has a slight emargination followed by a small tooth; disc strongly raised anteriorly and on central portion, deeply punctured on apical  $1/3$ , impunctate on median swollen portion which continues as an oblong prolongation almost to basal margin and laterally as 2 long arms which form a ridge around mid-lateral concavity, another lesser cavity between this and middle of base with a few large punctures, the former cavity with still fewer punctures. Scutellum raised posteriorly, narrowed and rounded apically. Elytron nearly  $3 \times$  as long as head and prothorax combined, evenly and strongly widened to just before apex which is obliquely rounded-truncate; disc with 8 somewhat irregular rows with fairly deep punctures with alternate interstices strongly raised except for middle one which becomes obsolete at postmedian depression, punctures largely in pairs as a result of numerous transverse ridges between main costae. Ventral surfaces somewhat frosted, with minute granules or punctures. Hind femur not quite reaching middle of abdominal segment 3. Length 3.3 mm; breadth 1.55.

Holotype (BISHOP 2958), Lorengau, 100 m, Manus I., Admiralty Is. in a small sedge (#3500), 28 June 1959, Gressitt; 4 paratypes and immature stages, same data.

*Biology*: The larvae mine in the basal portions of leaves of slender sedges and the adults feed on the undersurfaces of the leaves.

*Larva*: Very pale; head capsule nearly as broad as long, deeply and triangularly emarginate, evenly rounded at side and truncate anteriorly, smooth and minutely punctured; pronotum shiny, feebly wrinkled transversely, with a well set off apical chevron-shaped area which is granulose basally and transversely striate apically; middle abdominal tergites minutely punctured, with a narrow transverse groove bordered with larger granules; lateral processes obtusely rounded and each bearing 1 or 2 hairs; last segment with 3 rounded lobes, middle one slightly more protruding.

*Pupa*: Head rather even, with a very slight angle at upper edge of eye; pronotum smooth, strongly convex anteriorly with a weak swelling near side anterior to middle; middle abdominal tergites with 2 rows of 4 tubercles each, the outermost fairly close, and obliquely placed; lateral processes very short, posterior one slightly longer than broad; last segment obtusely rounded in dorsal view.

HOST: Small sedge, near *Scleria* (?).

DISTRIBUTION: Admiralty Is. (Manus).

#### TRIBE HISPINI

#### Genus *Hispellinus* Weise, 1875

*Hispellinus csikii* (Gestro), 1907 (p. 313, f. 30)

HOSTS: Kunai (*Themeda*, *Imperata*, *Saccharum spontaneum*).

DISTRIBUTION: NE New Guinea (BUDAPEST).

**Hispellinus albertisi** (Gestro), 1897 (p. 313)

HOST: Wild *Saccharum*.

DISTRIBUTION: Papua (Fly R.; GENOVA).

**Hispellinus multispinosus** (Germar), 1848

HOST: Grasses.

DISTRIBUTION: Australia (ZMB?); Papua (?); Buru (?).

Genus **Dactylispa** Weise, 1897

**Dactylispa vanikorensis** (Guérin-Ménéville), 1841

DISTRIBUTION: Santa Cruz Is. (Vanikoro).

**Dactylispa macnamarana** Gressitt, 1957 (p. 316)

DISTRIBUTION: Papua (Mt. Lamington; AM).

**Dactylispa rubus** (Gestro) (p. 317, f. 31)

DISTRIBUTION: Papua (GENOVA); Guadalcanal.

**Dactylispa plagiata** Weise, 1905 (p. 317)

DISTRIBUTION: New Guinea (ZMB).

**Dactylispa cincta** (Gestro), 1885 (p. 318)

DISTRIBUTION: N New Guinea (Andai; GENOVA).

Genus **Dicladispa** Gestro, 1897

**Dicladispa fabricii** (Guérin-Ménéville), 1838 (p. 319)

HOST: *Oplismenus* sp. (grass).

DISTRIBUTION: New Guinea (PARIS ?), New Britain, Bougainville.

**Dicladispa linnei** (Weise), 1905 (p. 319)

HOST: Grass, *Aralia* ?, *Costus* ?

DISTRIBUTION: NE New Guinea (ZMB ?); Papua.

**Dicladispa kapauku** Gressitt, 1957 (p. 320)

HOST: Grasses.

DISTRIBUTION: WC New Guinea (Wisselmeren; BISHOP).

**Dicladispa pembertoni** Gressitt, 1957 (p. 321, f. 32b)

DISTRIBUTION: W Papua (Fly R.; BISHOP).

Genus **Platypria** Guérin-Ménéville, 1840

**Platypria moluccana aitapensis** Gressitt, 1957 (p. 323)

DISTRIBUTION: NE New Guinea (Aitape; AM).